## EXHIBIT 7

Alan C. Whitehouse, M.D.

In re: W.R. Grace & Co., Debtor

June 16, 2009



Phone: 206 287 9066 Fax: 206 287 9832 Email: info@buellrealtime.com Internet: www.buellrealtime.com

1	IN THE UNITED STATES BANKRUPTCY COURT	Page 1
2	FOR THE DISTRICT OF DELAWARE	
3		
4	In re: ) Chapter 11	
5	W.R. GRACE & CO., et al., ) No. 01-01139 (JKF)	
6 7	Debtors. )	
8 9	Videotaped Deposition Upon Oral Examination Of ALAN C. WHITEHOUSE, M.D.	
10 11	Taken at 17620 International Boulevard Seattle, Washington	
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23		
24	DATE TAKEN: June 16, 2009	
25	REPORTED BY: CATHY ZAK, CCR# 1922	

Buell Realtime Reporting 206 287 9066 In re: W.R. Grace & Co., Debtor

Alan C. Whitehouse, M.D.

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APPEARANCES		1 2	DEPOSITION OF ALAN C. WHITEHOUSE, M.D.	
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212.269.4900		14	, ,	
212.269.4900 LSTATE (via telephone):		15		
212.269.4900 LSTATE (via telephone): ANDREW K. CRAIG CUYLER BURK			***** (* Denotes phonetic spelling.)	
212.269.4900 LSTATE (via telephone): ANDREW K. CRAIG CUYLER BURK 4 Century Drive		15 16 17 18		
212.269.4900 LSTATE (via telephone): ANDREW K. CRAIG CUYLER BURK 4 Century Drive Parsippany, New Jersey 07054		15 16 17 18 19		
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F 5	P.O. Box 2325 Great Falls, Montana 59403 406.761.5595 R. GRACE: DAVID M. BERNICK BRIAN STANSBURY HEATHER A. BLOOM KIRKLAND & ELLIS 655 15th Street NW Washington, D.C. 20005 202.879.5969 R. GRACE and OFFICIAL COMMITTEE OF ASBESTOS SONAL INJURY CLAIMANT: NATHAN D. FINCH CAPLIN & DRYSDALE One Thomas Circle NW Washington, D.C. 20005 202.862.7801 RYLAND CASUALTY and ZURICH: EDWARD J. LONGOSZ ECKERT SEAMANS 1747 Pennsylvania Avenue NW, 12th Floor Washington, D.C. 20006 202.659.6619 DPERTY DAMAGE FUTURE CLAIMANTS' REPRESENTATIVE telephone): ALAN B. RICH Attorney at Law 1401 Elm Street, Suite 4620 Dallas, Texas 75202 214.744.5100  APPEARANCES (continuing)  "ATE OF MONTANA (via telephone): SAMANTHA P. TRAVIS CHRISTENSEN, MOORE, COCKRELL, CUMMINGS & AXELBERG 145 Commons Loop; Suite 200 P.O. Box 7370 Kalispell, Montana 59904 406.751.6010 RROWOOD INDEMNITY COMPANY (via telephone): BRAD M. ELIAS GARY SVIRSKY O'MELVENY & MYERS 7 Times Square New York, New York 10036 212.326.2248 DNTINENTAL CASUALTY COMPANY and CONTINENTAL	P.O. Box 2325 Great Falls, Montana 59403 406.761.5595 R. GRACE: DAVID M. BERNICK BRIAN STANSBURY HEATHER A. BLOOM KIRKLAND & ELLIS 655 15th Street NW Washington, D.C. 20005 202.879.5969 R. GRACE and OFFICIAL COMMITTEE OF ASBESTOS SONAL INJURY CLAIMANT: NATHAN D. FINCH CAPLIN & DRYSDALE One Thomas Circle NW Washington, D.C. 20005 202.862.7801 RYLAND CASUALTY and ZURICH: EDWARD J. LONGOSZ ECKERT SEAMANS 1747 Pennsylvania Avenue NW, 12th Floor Washington, D.C. 20006 202.659.6619 DPERTY DAMAGE FUTURE CLAIMANTS' REPRESENTATIVE telephone): ALAN B. RICH Attorney at Law 1401 Elm Street, Suite 4620 Dallas, Texas 75202 214.744.5100  Page 3  APPEARANCES (continuing)  FATE OF MONTANA (via telephone): SAMANTHA P. TRAVIS CHRISTENSEN, MOORE, COCKRELL, CUMMINGS & AXELBERG 145 Commons Loop; Suite 200 P.O. Box 7370 Kalispell, Montana 59904 406.751.6010 RROWOOD INDEMNITY COMPANY (via telephone): BRAD M. ELIAS GARY SVIRSKY O'MELVENY & MYERS 7 Times Square New York, New York 10036 212.326.2248  DNTINENTAL CASUALTY COMPANY and CONTINENTAL	P.O. Box 2325 Great Falls, Montana 59403 406.761.5595 8. GRACE: DAVID M. BERNICK BRIAN STANSBURY HEATHER A. BLOOM KIRKLAND & ELLIS 655 15th Street NW Washington, D.C. 20005 202.879.5969 13 R. GRACE and OFFICIAL COMMITTEE OF ASBESTOS SONAL INJURY CLAIMANT: NATHAN D. FINCH CAPLIN & DRYSDALE One Thomas Circle NW Washington, D.C. 20005 202.862.7801 RYLAND CASUALTY and ZURICH: EDWARD J. LONGOSZ ECKERT SEAMANS 1747 Pennsylvania Avenue NW, 12th Floor Washington, D.C. 20006 202.69.6619 DRERTY DAMAGE FUTURE CLAIMANTS' REPRESENTATIVE telephone): 21 ALAN B. RICH Attorney at Law 1401 Elm Street, Suite 4620 Dallas, Texas 75202 214.744.5100 24 APPEARANCES (continuing) 7ATE OF MONTANA (via telephone): SAMANTHA P. TRAVIS CHRISTENSEN, MOORE, COCKRELL, CUMMINGS & AXELBERG 145 Commons Loop; Suite 200 P.O. Box 7370 Kalispell, Montana 59904 406.751.6010 RROWOOD INDEMNITY COMPANY (via telephone): BRAD M. ELIAS GARY SVIRSKY O'MELVENY & MYERS 7 Times Square New York, New York 10036 212.326.2248 DINTINENTAL CASUALTY COMPANY and CONTINENTAL	P.O. Box 2325 Groat Fails, Montana 59403 406, 761,5095 GRACE: GRA

2 (Pages 2 to 5)

	Page 6		Page 8
1	BE IT REMEMBERED that on Tuesday,	1	COURT REPORTER: I'm sorry. Could you
2	June 16, 2009, at 17620 International Boulevard,	2	repeat the name again? I can't hear you.
3	Seattle, Washington, at 8:33 a.m., before CATHY M.	3	MS. DeCRISTOFARO: Sure. It's
	<u> </u>		
4	ZAK, CCR, Notary Public in and for the State of	4	Elizabeth DeCristofaro. That's
5	Washington, appeared ALAN C. WHITEHOUSE, M.D., the	5	D-E-C-R-I-S-T-O-F-A-R-O.
6	witness herein;	6	MR. RICH: Alan Rich for the Property
7	WHEREUPON, the following proceedings	7	Damage Future Claimants' Representative.
8	were had, to wit:	8	THE VIDEOGRAPHER: Is that everyone on
9		9	the phone?
10	<<<<< >>>>>	10	MR. CRAIG: Hi. Andrew Craig,
11		11	C-R-A-I-G, for Allstate Insurance.
12	THE VIDEOGRAPHER: Good morning. We're	12	THE VIDEOGRAPHER: The court reporter
13	now on the record. Today is June 16th, 2009, and the	13	today is Cathy Zak with Buell Realtime Reporting.
14	time is now 8:33 a.m. The location of today's	14	Please swear in the witness and proceed with
15	deposition is 17620 International Boulevard, SeaTac,	15	the deposition.
16	Washington 98188.	16	'
17	My name is Cecil Grant, video specialist	17	ALAN C. WHITEHOUSE, M.D., having been first duly
18	representing Buell Realtime Reporting out of Seattle,	18	sworn by the Notary,
19	Washington, for this cause number 01-1139 JKF in re	19	deposed and testified as
20	W.R. Grace & Company, et al.	20	follows:
21	Today's deponent is Dr. Alan C. Whitehouse.	21	Tollows.
22	Would counsel please identify themselves and	22	
	•		FVAMINATION
23	state whom you represent?	23	EXAMINATION DV MD. FINCH
24	MR. FINCH: My name is Nathan Finch. I	24	BY MR. FINCH:
25	represent W.R. Grace and Official Committee of	25	Q Dr. Whitehouse, as you heard before, my name
1	Page 7	1	Page 9
1	Asbestos Personal Injury Claimants. With me is my	1	is Nate Finch and I represent the Grace ACC or
2	Asbestos Personal Injury Claimants. With me is my colleague Jeanna Rickards.	2	is Nate Finch and I represent the Grace ACC or Official Committee of Asbestos Personal Injury
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3 (Pages 6 to 9)

Page 10 Page 12 case with the attachments except that I haven't 1 mesothelioma medical exposure criteria; is that 2 included all of the CD ROMs? I've just not included 2 correct? those, but the rest of the attachments I believe we 3 3 A Show me that paragraph again before I answer 4 have collected and --4 that question to be sure. Where's it located again? 5 5 A It would appear that way. Q Well, you talk about mesothelioma. Q Okay. Now, you have submitted in addition to A Yeah, I don't think so, but I want to make 6 6 this May 2009 report a report in December of 2008 and 7 7 sure. another report in March of 2009; is that correct? 8 8 Q You want to see the paragraph from the TDP? 9 A I believe so. 9 A No, the paragraph in here relative to it. 10 Q Well, you talk about --10 Q Is the May 2009 report that is Whitehouse Deposition Exhibit-1 -- as I read this, it looks like A And the paragraph in the TDP too. 11 11 MR. FINCH: Why don't we mark the TDP it appears to supplement and update and replace the 12 12 13 March report and the December report? 13 as Deposition Exhibit-2. 14 A Yeah, basically it does. It just updates 14 (Exhibit-2 marked for 15 what's been done before. 15 identification.) Q Okay. So this report, Whitehouse Exhibit-1, 16 Q (By Mr. Finch) And the reason, 16 the May 2009 report contains -- leaving aside your Dr. Whitehouse, I don't want to refer you to your 17 17 18 rebuttals to the other medical experts, but this 18 reports is because I've read through all your reports 19 contains your opinions and conclusions you've been 19 and I didn't see anything in there that criticized the mesothelioma medical exposure criteria and the asked to testify about in the Grace case? 20 20 21 A Yes. 21 TDP. A I don't know there is actually, but I want 22 Q Do you understand what the purpose of an 22 expert witness report is? 23 23 to -- I want to be sure. 24 24 (Mr. Bernick enters.) 25 25 Q (By Mr. Finch) Okay. Page 24 of the TDP. Q And what's your understanding of what the Page 11 Page 13 purpose of that expert witness report is? 1 A No, I don't have any problems with it. 1 A I guess the best way to put it is to put up 2 Q When you came in the room today, your counsel 2 3 front the opinions relative to the situation at hand. handed out this document. Q To put forth the opinions you're going to MR. FINCH: Let's make this Whitehouse 4 4 give and the basis for those opinions; is that fair? 5 5 Exhibit-3. 6 A That's correct. 6 (Exhibit-3 marked for 7 Q Okay. I've read -- and you understand that 7 identification.) this is a bankruptcy case where the Court is going to 8 MR. LEWIS: Actually, Dr. Whitehouse --9 be asked to either approve or disapprove a plan of 9 A I have a copy of it already, so... (Pause.) reorganization. Do you have that understanding? MR. BERNICK: Well, is there --10 10 A I didn't bring this one with me. 11 A That's true. 11 Q (By Mr. Finch) Okay. 12 Q And as I understand it, you have reviewed the 12 medical and exposure criteria in what's called the MR. LEWIS: And it was prepared by my 13 13 14 Grace Trust Distribution Procedures, TDP? 14 co-counsel, Jon Heberling and his firm, so I don't 15 A I have. want to mislead anybody on that. 15 Q (By Mr. Finch) Dr. Whitehouse, what is 16 Q And you have some opinions about the Grace 16 TDP? Can I call it the Grace TDP? 17 Whitehouse Deposition Exhibit-3? 17 18 A I do. 18 A What is what? Q Do you have opinions about the medical and --19 Q What is Whitehouse Deposition Exhibit-3? 19 20 well, you have some opinions about the Grace TDP that 20 What is this document? you have described at various places in your reports, A Oh, basically, I don't understand all the 21 21 22 correct? 22 machinations that went into this except that in order to maintain confidentiality of patients that are not 23 A Correct. 23 clients of these two attorneys and to not violate Q I've read through all of your reports in this 24 24 case and I didn't see any criticism of the HIPAA rules, they were identified by number and by 25

4 (Pages 10 to 13)

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Page 14 initials in here and this is basically the numbering of all their clients, plus all the other people that 2 are involved in studies and things like that that are presented here like that paper and the mortality 4 5 study.

So it totals about 1,030 numbers, of which a good number of are initials because they're confidential.

- Q Okay. And on the first page of this separate cover page, there's a column that says Libby Claimant --
- A Yes. 12

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13 Q -- do you see that?

14 So if it says yes, that means there's somebody that sued or would otherwise sue W.R. Grace 15 there because they filed a lawsuit? 16

A That's correct and then if you'll notice, the ones that say Libby Claimant, no, they're usually -there should be initials by those.

- Q Okay. And those --
- 21 A I actually haven't seen this much myself, but 22 that's what I understand.
  - Q Okay. The people that are nos are people who were not the clients of either Mr. Heberling's law firm or Mr. Lewis' law firm, right?

Page 16

- 1 Libby with various forms of asbestos disease due to what we call Libby asbestos, but I also in my
- practice have been involved in seeing a large number
- of people with predominantly chrysotile disease,
- basically commercial chrysotile disease from Hanford 5
- and Wallula Paper Mill and a beet factory in Moses 6
- 7 Lake and the shipyards in western Washington, a lot
- of them sent to me by State of Washington for 8
- 9 evaluation of their disease, and then a lot of them that I followed over a period of years. 10
  - Q What do you mean in your report and opinions by Libby asbestos?

A Well, basically what's happened is that when Libby -- or when the asbestos problems in Libby were originally defined, the fiber itself was characterized not as tremolite, which is what it -- a

- 16 term that it had been used for for years. It was 17
- then defined as winchite, richterite, with some 18
- 19 degree of tremolite, and was a different -- different
- 20 compound and in order to not have a mouthful of
- words, everybody has been calling it Libby asbestos 21 22 since that time.
- 23
  - Q Okay. So for purposes of your definition,
- 24 Libby asbestos refers to the mix of winchite, 25
  - richterite, and tremolite that is a contaminant in

Page 15

- 1 A Right.
- 2 Q Okay. And as I read this, it looks like 3 there's 1,030 people listed on this chart; is that 4 right?
  - A I understand that, mm-hm.
  - Q Now, this doesn't -- these are the people that -- this doesn't include all 1,800 patients with asbestos-related disease that have been seen by the CARD Clinic, does it?
  - A No.
  - Q So you haven't -- or people have not produced the medical records for about 800 of the 1,800 people; is that correct?
- 14 A As far as I know. I -- I've really not been 15 privy to all that's gone on with that.
  - Q Okay. Could you turn in your expert report, Whitehouse Deposition Exhibit-1, on Page 1? The bottom of Page 1, you write, I am in a position to compare asbestos disease from Libby asbestos to asbestos disease from chrysotile asbestos.
  - Do you see that?
- 22 A Yes.
- 23 Q What do you mean by asbestos disease from Libby asbestos? 24
- 25 A Well, I've seen a large number of people from

- Page 17 the vermiculite or that was mined at Libby Mountain
- 2 in Montana?

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- A Yeah, basically.
- Q Okay. Do you have some kind of position with 4 5 the CARD Clinic?
- 6 A I'm a pulmonary consultant to the CARD 7
  - Clinic. I go up there on a fairly regular basis. I
- have been for a number of years. 8 9 Q Are you paid a salary at all by the CARD
- Clinic? A I am. 11
- Q What's that salary? 12
- A It basically is \$1,000 a day when I'm there. 13
- 14 Q And I noticed in your expert report that you say that your hourly rate is \$350 an hour. What do 15
- you charge \$350 an hour to do? 16
  - A Depositions.
- Q Did you charge for your time in preparing the 18 19 expert report?
- 20 A I do.
- 21 Q Did you charge for your time in either
- 22 testimony before workers compensation boards or other
- kind of courtroom testimony in addition to deposition 23
- 24 testimony?
- 25 A I do.

5 (Pages 14 to 17)

Page 18 Page 20 1 Q Approximately how much money have you made 1 MR. LEWIS: Are you representing that 2 over the past five years as a result of being asked this is accurate -to give expert reports or testimony on matters 3 3 MR. FINCH: Yes. 4 relating to Libby asbestos? 4 MR. LEWIS: -- an accurate A Well, there's also the Department of Justice 5 5 reproduction? that had paid me as well, which you probably know as 6 6 MR. FINCH: Yes. MR. LEWIS: Thank you. well. I guess probably over \$100,000, but I'm not 7 7 sure I know the exact amount. I've never added it MR. FINCH: It's an accurate 8 8 9 9 reproduction of what's on the Web site. 10 MR. FINCH: Why don't we mark this as 10 A I see it. 11 the next exhibit. 11 Q (By Mr. Finch) All right. Can you go to 12 the -- can I see your copy, Dr. Whitehouse, just for 12 Q (By Mr. Finch) Are you aware that the CARD 13 Clinic maintains a Web site? 13 14 A Yes. 14 A Sure. (Document passed.) 15 (Exhibit-4 marked for 15 Q All right. I've put a tab on the page I want you to turn to. 16 identification.) 16 Q (By Mr. Finch) Did you have any -- who --A Okav. 17 17 18 did you have any role in reviewing the information 18 MR. LEWIS: Let me see that. 19 put on the Web site? 19 THE WITNESS: (Document passed.) A No, and I have no idea what's on it now. 20 Q (By Mr. Finch) Do you see that the title of 20 21 Q Would you expect that things that the CARD 21 that says, Libby Amphibole Asbestos Exposure in Clinic would say about Libby asbestos disease and 22 Libby, Montana? 22 A Yes. 23 asbestos disease in general on their Web site to be 23 24 truthful and accurate? 24 Q The one, two, three, fourth -- fifth 25 A Yeah, I can't -- I can't answer that 25 paragraph down -- and I'm going to read from the Page 19 Page 21 typewritten version of this as opposed to the

question. I have not looked at the Web site since the first draft, and the thing's came out probably

3 over five, six years ago. I haven't even looked at 4 it since then.

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Q Okay. Would you turn to what's been marked as Whitehouse Deposition Exhibit-4, and this is what -- I'll represent to you this is what I printed out from the CARD Clinic Web site a couple of weeks ago. There's a section that says, frequently asked questions. Do you see that?

A What page are --

- Q Oh, the front page.
- 13 A Right here?

14 Q If you skip past all of the -- and what I have done -- because when I printed this out, it cut 15

off the columns on the right-hand side. I had my secretary go and cut and paste all the words into the

document behind it so that you can see -- for example, if you go about seven pages back, you see 19

20 where the text type changes? All we've done is we've taken the text that -- as it appears --

21 22

- A Oh, I see what you've done.
- Q -- on the Web page so you can see the whole sentence wrap around as opposed to being cut off. Do

25 you see that?

printout version because it's -- you can see all the words better, but it says, Zonolite and Monocote are

two trade names under which Libby vermiculite 4

products were marketed. There are two overwhelming examples of the extent to which exposure can spread through commercial products.

And then it talks about vermiculite --Zonolite attic insulation and Monocote spray-on fire -- fire proofing. Do you see that?

A I do.

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12 Q Did you -- do you have the understanding that Libby asbestos was a contaminant in both Monocote 13 spray-on fire proofing and Zonolite attic insulation? 14

A That's my understanding.

Q Did you also understand that it was in -- a contaminant in many of Grace's other commercial construction products as well?

19 A Yeah, although I don't know the exact extent 20 of them.

21 Q Okay. So to the extent that it is -- let me 22 back up.

23 You're of the view that asbestos Libby (sic) 24 from Libby asbestos causes pleural disease that's 25

more severe than seen in cohorts of people who were

6 (Pages 18 to 21)

Page 22 exposed to asbestos that is not Libby asbestos?

A Both in degree and in amount for a number of patient -- people that were exposed to it, yes.

Q Let me back up.

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What do you mean by degree?

A It's very hard to quantitate to what degree because you can find examples of people with exposure that have severe pleural disease, but the frequency of people with severe pleural disease and the frequency of death from severe pleural disease appears to be significantly worse with Libby asbestos.

Q With Libby asbestos.

Now, mesothelioma is a disease caused by exposure to asbestos, right?

A Yes.

Q Would you agree with me that the prognosis for someone who develops mesothelioma as a result of being exposed to pure chrysotile asbestos is no different than the prognosis for someone who was exposed to Libby asbestos?

A Well, they're all going to die from it.

Q So would you agree with me that at least for mesothelioma, mesothelioma caused by Libby asbestos isn't more severe or more fatal than mesothelioma

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A Yes.

Q Okay. And that's the same whether they're exposed to Libby asbestos or chrysotile asbestos?

Page 24

Q Okay. So to that extent, lung cancer isn't any more severe if you get it from being exposed to Libby asbestos than if you got exposed to it from chrysotile asbestos?

A Probably not.

Q Okay. What about gastrointestinal tract cancer? There's no difference in severity for those kinds of cancers if you were exposed to Libby asbestos as opposed to chrysotile asbestos?

A As far as I know.

Q Now, most of your opinions focus on pleural disease. Have you -- I didn't see anywhere in your report where you asserted or indicated that asbestosis -- and by asbestosis, I mean interstitial fibrosis of the parenchyma of the lung. Do you understand that definition of asbestos?

A I do.

Q Okay. I didn't see any assertion that asbestosis caused by Libby asbestos, that the prognosis for that person is any different than

Page 23

caused by chrysotile asbestos?

A No, I would agree with that.

Q Okay. Would you also agree with me that the prognosis from someone who develops lung cancer as a result of exposure to Libby asbestos is no better or no worse than the prognosis of someone who develops lung cancer as a result of exposure to chrysotile asbestos?

A It's probably not any different, but it may depend, on an individual case, on the degree of underlying asbestos disease they have.

Q But generally speaking, if you get lung cancer, nine times out of ten you're going to die from lung cancer, right?

A I don't think that that has been our experience.

Q What's been your experience?

A Well, we do a lot screening for lung cancer and we found a significant number of small nodules that I'm reasonably certain we have cures from. I don't have the data as to what percentage of death from lung cancer in Libby we have, but it's, I think, less than nine out of ten.

Q Okay. Would you agree with me that the majority of people who get lung cancer die from lung Page 25

asbestosis caused by chrysotile asbestos.

A I think the school is still out on that. Q Okay. So you don't -- sitting here today, you can't give an opinion that asbestosis caused by Libby asbestos is more severe or more likely to lead to death than asbestosis caused by chrysotile asbestos?

A I can't make that statement, no.

Q Okay. So really what you're talking about as being more severe asbestos disease from Libby asbestos as opposed to chrysotile asbestos is pleural disease, correct?

A The pleural disease and the things that are associated with pleural disease than Libby which does not necessarily exclude interstitial disease or subpleural interstitial disease.

Q Well, would you also agree with me -- let me back up, Doctor.

You know Dr. Art Frank, correct?

20 A I do.

21 Q Did you read his deposition in preparation 22 for your deposition today?

23 A I did.

24 Q Did you -- did you see where I asked him the 25 question of whether there was some kind of magical

7 (Pages 22 to 25)

shield around Lincoln County, Montana, that would make exposure to Libby asbestos in Montana more likely to lead to disease or death as compared to exposure with Libby asbestos in New York City, for example?

A I don't have any evidence to, you know, really make any real comment on that because what I've studied has been strictly asbestos in Libby.

- Q Okay. So you can't say, for example, that people who are exposed to Libby asbestos in Libby are any sicker or have a different severity of their pleural disease as compared to people who are exposed to Libby asbestos in Ohio at a vermiculite processing facility or in New York at a construction site, can you?
- A No, except that I have seen about a half of a dozen patients over ten years from various expansion plants and other jobs, not only in Spokane, in California, Minnesota who had very severe disease.
- Q They had very severe disease as a result of being exposed to the Libby asbestos?
- 22 A Yes.

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- 23 Q And so would you agree with me then that 24 the -- let me back up.
  - Mr. Lewis used a term when he said who he

Page 26 Page 28

- 1 Ph.D. who has tested various Grace commercial
- construction products and is of the view or actually
   has confirmed that they, A, contain Libby asbestos --
- 4 a lot of them contain asbestos in the vermiculite fix
- 5 that went in as filler to those products like
- 6 Monocote. I take it you don't dispute or have any 7 basis to challenge his conclusions about that?
- 8 MR. LEWIS: Object to the form of the 9 question on the grounds that it's compound.
- 10 MR. FINCH: Let me rephrase.
  - MR. LEWIS: And it's unintelligible as

12 stated.

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- Q (By Mr. Finch) Did you understand my question?
- A Yeah, I understand your question, but, you know, I can't recall. That was a long report with, I mean, all kinds of permutations and combinations of times and compounds that he was obviously aware of and I wasn't, so I'm not sure I can really comment on it.
- 21 Q Okay. So you're just not in a position to 22 comment on it one way --
- 23 A No.
- 24 Q -- or another?
  - And so if he were to come in and testify that

Page 27

represented. He said he represents the Libby claimants. And I understood that to mean people who have filed a lawsuit or would have filed a lawsuit against W.R. Grace. Do you have that understanding?

- A Yes.
- Q Okay. But you're a doctor and you look at people who -- or a patient with asbestos disease, correct?
  - A That's correct.
- Q And you treat people regardless of whether they're a claimant or not a claimant?
- A Yeah. Most of the time when I see them, I don't even know whether they're a claimant or not.
- Q Okay. And so would you agree with me that to the extent there is something different about the Libby asbestos that causes more severe pleural disease that would affect people who aren't Libby claimants, i.e., people who were exposed to Libby asbestos outside of Libby, Montana, just as it would affect people in Libby, Montana?
- A I'd make that assumption, yes.
- 22 Q And have you read William Longo's\* report in 23 the Grace case?
  - A It's been quite a while since I read it.
- 25 Q He is -- he is not a medical doctor. He is a

Libby asbestos ended up in vermiculite that went into
a broad range of Grace's asbestos containing
products, you couldn't comment on that one way or
another?

- A No, I could comment on it that there's a significant risk to people that are exposed to that compound.
- Q Okay. Let's go back to your report. Put aside, at least for now, the CARD Clinic Web page printout, and you have the TDP over there.
- 11 Okay. You see at paragraph 22 in your 12 report?
  - A Paragraph 22?
- 14 Q Paragraph 22, Page 10.
  - A I do.
- 16 Q You're describing the impact on asbestos 17 disease due to Libby asbestos exposure. Do you see 18 that?
  - A Yes.
- 20 Q In that paragraph, you're talking about the 21 progression of non-malignant disease; is that 22 correct?
- 23 A That's correct.
- Q Okay. At the last sentence, you write, At the end stage, the patient is bedridden, oxygen

8 (Pages 26 to 29)

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dependent, and generally the hypoxia will lead to 2 organ malfunction and death. 3

Do you see that?

A Yes.

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- Q And just for purposes of the record, please define hypoxia.
- A Hypoxia is a low -- low oxygen level beyond the lower limits of what is considered to be normal.
- Q Now, when someone reaches the point -- would you agree with me that people that -- shortness of breath is a symptom. Someone comes -- a patient comes to you and says, I'm having problems breathing. That's a symptom that a patient describes to a doctor, correct?
- A Correct.
- Q Okay. Now, a doctor can do a variety of lung function tests to see how their lung function has been impacted and may be causing shortness of breath, correct?
  - A They don't usually start there though.
- 21 Q Where do they usually start?
  - A The physical history and physical exam.
  - Q Okay. So you do the physical history and the physical exam, and then at some point, you do a
  - series of lung function tests, correct?

Page 32

- fact that we don't know where they started from. You
- start with healthy people who have been hard working
- all their life, particularly people who've done
- 4 physical labor. You may find normal values that are
- 5 in the range of 140 percent of predicted, and so then
- you cannot always assume that somebody that has 100 6
- 7 percent of predicted that that's normal for them, 8
- that they may have lost 40 percent, but you have no 9 way of knowing that, but that may correlate with
- their shortness of breath. 10
  - Q Okay. I understand that that's sometimes called the healthy worker phenomenon where the people that may be outliers in the sense that they started out at 120 percent of predicted or 140 percent of predicted, they can lose a significant amount of their lung function, but would still show up as, quote, normal on a spirometry test or a lung capacity test?
  - A They could, although I've never seen that term healthy worker used that way.
  - Q Okay. Let's say if you took somebody who was a subforeman, they may have super optimal lung capacity and that guy might be, say, 150 percent of predicted and lose 50 percent of his lung capacity and still show up as 100 percent of predicted as a

Page 31

- A Correct.
- Q Okay. And the lung function test that you normally do in someone who's an asbestos-exposed person would be what?
- A Well, we do, routinely, spirometry before and after bronchodilator, lung volumes in a body plethysmograph and diffusion capacities.
- Q Okay. Diffusion capacities is sometimes called DLCO?
  - A Never heard that used. D-L-C-O.
  - Q D-L-C-O.

And how do -- and would you agree with me that the patient's score on the various lung function tests that you administer provide an objective measurement as to how, if at all, their lung function has been affected or damaged, correct?

- A It may.
- Q It may.

So there could be people who genuinely and truthfully and honestly say, I'm experiencing shortness of breath, yet when you do a total lung capacity or forced vital capacity or DLCO, the lung function tests could be in -- you know, within the normal ranges, correct?

A Well, the problem that you describe is the

Page 33 normal population even though he's suffered lung

2 function, correct? 3

A That's possible, although, you know, he's not going to be running four minute miles any more.

Q I rather suspected that.

But would you agree with me that the way the -- what does it mean to be -- to be above the lower limit of normal?

A Well, the problem -- I don't know if it's a problem with lung function tests, but lung function tests have to be -- they don't get interpreted in a vacuum meaning the nominal norms plus or minus two standard deviations, which is a range of 80 to 120 percent, there's at least twenty different sets of normal values out there that have been done over the vears and --

Q You're speaking of the reference equation?

A Yeah, the reference equations and all, so, you know, the ones that I use and the ones that have been used for timing memorial for a lung function, probably the most commonly used ones, but there's

- 22 always change in it, and so you have to interpret
- your pulmonary function studies in light of what you 23
- 24 know about the patient and the problems and all
- 25 that -- all the variety of stuff that goes into doing

9 (Pages 30 to 33)

Page 34

a diagnostic workup on somebody.

- Q But you mentioned two standard deviations from normal. Do you understand that basically 95 percent of the people are going to fall between 80 percent of predicted and 120 percent of predicted?
  - A Yeah, I think that's what it is, yeah.
- Q Okay. Would you agree with me that if someone dies from -- well, how does the non-malignant asbestos diseases caused by Libby asbestos lead to death? What does it do physiologically to the person that kills them?
- A It leads to a number of things. It leads to progressive shortness of breath. Most of them seem to die of -- not most of them, but a large number of them die of severe loss of lung volume, so they wind up with vital capacities in the 30 to 40 percent range of predicted or they wind up with diffusion capacities down to 20 or 30 percent.

So they either -- for the most part, either die of hypoxia with carbon dioxide retention or they die of what's called a cor pulmonale which is heart failure due to pulmonary hypertension disease within their asbestos disease.

Q But would you agree with me that the majority of people who die from a non-malignant disease caused

A Well, there was 110 of them that died either with lung cancer that was related to that or with pleural or interstitial disease. Asbestos disease was non-malignant.

Page 36

Page 37

Q Right. The 110 include people who died of cancer, right?

A It did.

- Q Okay. And my understanding is of the 110, 76 of them died from -- and by that, I'll use quotes -- died from a non-malignant disease as opposed to a cancer?
  - A That's correct.
- Q Okay. Of the 76 people who died from a non-malignant disease, would you agree with me that the majority of them by the end stage, but a few days before they died, if you measured their lung function, it would be well below 60 percent of predicted?
  - A Which numbers are you talking about?

    O Total lung capacity, forced vital capacity
- 20 Q Total lung capacity, forced vital capacity or 21 DLCO.

A Yeah, well, I think that's probably right because we had almost 50 percent of them that had DLCO as their isolated abnormality and they may have had minor degrees of lung -- volume loss, but they

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- by exposure to asbestos, at the end stage, they will have lung function test scores that are significantly below the lower limits of normal, at least on one of the three tests you mentioned?
  - A Well, most of the time. There have been rare examples of people that will have only modest degrees of loss of lung function and develop severe hypoxia associated with that because hypoxia does not directly correlate with the lung function test.
- Q Meaning you can be -- you can still for whatever reason be able to get more oxygen in through your blood even if you have decreased lung function and, conversely, you can have not so significant lung function decline, but less oxygen in your blood?
  - A Right.
- Q But for the majority of people who die from Libby -- you did something called the CARD mortality study, correct?
  - A Yes.
- Q And I think the numbers are right here.
  Basically, you determined out of 186 people who had died who had at one time been diagnosed with an asbestos-related disease, that 110 of them, their death was caused in whole or in part by exposure to Libby asbestos; is that right?

had a very severe defusion defect.

- Q Could you pick up the TDP which is an exhibit to your deposition? I'm not sure what number it is.

  MR. LEWIS: Two.
- Q (By Mr. Finch) Number two. I have reviewed your reports and your criticisms of the TDP. I didn't see any criticisms of the amounts of money that are scheduled to be paid on expedited review to people that qualify for various levels of disease; is that correct?

MR. LEWIS: Object. That's beyond his expertise. We're not talking about that question to this witness.

 $\ensuremath{\mathsf{MR}}.$  FINCH: Well, let me just establish that.

- Q (By Mr. Finch) You don't have any expertise in the dollar amounts that asbestos bankruptcy trusts pay to resolve asbestos personal injury claims, do you?
- A No, they just -- they seemed a little bit paltry to me, but I'm not -- I'm not an expert in that.
- 23 Q Okay. And you're not an expert in what kind 24 of values Grace paid when it was a defendant in the 25 tort system, both to people in Libby and people

10 (Pages 34 to 37)

Page 38
1 elsewhere? You're not offering any opinions about
2 that?

A As to how much they have paid?

Q Yes.

 A I have a few numbers in my head from prior trials, but that's all. That's not enough to draw any long-term conclusions probably.

Q Okay. And so what -- as I understand it, what you focused on was the medical and exposure criteria for certain of the diseases in the TDP, correct?

A Yeah, I try to stick with things that I know.

Q Okay. And I read all of your reports and I didn't see in any of your reports in the Grace bankruptcy case any criticism of the exposure requirements, is that correct, for Libby claimants, at least?

A No, actually, it probably isn't dealt with in there, although that six-month criteria in there I think is subject to knowing what I know to a fair amount of criticism and mainly because of people that have vacationed there for a few weeks or so and then wound up with severe asbestos with interstitial lung disease. In fact, I've got one particular patient that does have that.

t 1 and all. 2 Q (

Q Okay. Now, the TDP was not drafted by you, obviously, correct?

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A No.

Q Have you ever drafted trust distribution procedures for any kind of a bankruptcy trust?

A No, and I don't want to.

Q Would you agree with me that it's not purely a medical document?

A I'm not sure I could even answer that. I know it's designed as a way to distribute money to people who are injured, but I'm not sure what I would actually call it.

Q Well, it has -- do you understand that the medical and exposure criteria are presumptive criteria so that if someone satisfies them, the trust will offer them a settlement in the values in the grid? Do you understand that?

MR. LEWIS: I'm going to -- I'm going to object to this on the grounds that this witness is not qualified to answer the question, and based on his prior testimony, there's no foundation for -- to ask the question.

24 Q (By Mr. Finch) You can answer.

A Repeat the question for me.

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Q But you haven't -- you know, understand that the purpose of the report though is to lay out your criticisms so I can ask you the basis for them. You haven't anywhere in your report, as I read them, criticized the exposure criteria in the TDP.

A The exposure criteria as far as time or the extent of exposure?

Q Either or.

A Or level of exposure?

Q Either one.

A Well, the level of exposures are not well known. And we know that the miners had a lot exposure, but we don't know the level of exposure that is required to get significant pleural disease. We think it's pretty small, but we don't -- we don't have exact numbers on any of that.

Q But my question is a little bit more technical than that.

You just haven't -- I didn't see anywhere in any of your reports you writing down and saying, I am criticizing the definition of Grace's exposure or in the six months requirement in the TDP.

A No, I have not and I think that that's better left to people that are -- that know a lot about exposure and things like that about asbestos levels

1 Q I'll reask it.

Do you understand that the medical and exposure criteria in the TDP are set so that if people meet them for -- let's pick any of the particular disease levels -- if they meet them for that disease, the trust will offer them a settlement in the amount of money shown in the schedule values? Do you have that understanding that's how the thing works?

MR. LEWIS: Object on the prior basis and also on the grounds that it's compound.

A Well, I assume so, but I'm not sure I know enough to know how it actually works when it comes right down to it. Who gets paid what for how much or what the pitfalls are in it or things like that. I know some of the pitfalls, but I don't know all of them.

18 Q (By Mr. Finch) Okay. You don't have any 19 expertise in evaluating asbestos personal injury 20 claims for purposes of whether or not you should 21 settle them or not, do you?

22 A You mean from a legal standpoint?

23 Q Yes.

24 A No.

25 Q Do you have any understanding as to what

11 (Pages 38 to 41)

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Page 42

- 1 happens with someone who has, let's say, a
- 2 non-malignant disease that the TDP would call
- 3 asbestos pleural disease level three and they submit
- 4 a claim to the trust and they qualify, if they later
- 5 get sicker and their lung function test scores
- 6 decline further from what they were at the time they
- settled with the trust, whether or not they can comeback and make a new claim for the trust and get more
- 9 money?
  - A I do not know the answer to that.
  - Q Okay. One of your opinions, as I understand it, about how Libby -- a non-malignant asbestos disease caused by exposure to Libby asbestos, how
- that is different than non-malignant asbestos disease
- caused by exposure to, let's say, chrysotile asbestos is that the pleural disease is more progressive.
- 17 You've written those words?
  - A Yes.

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- Q What do you mean by more progressive?
- A There are good documentation now that we have watched the disease progress far more rapidly, and
- watched the disease progress far more rapidly, a
   particularly when I compare it with my past
- 23 experience than what's described or what's actually
- 24 described in the literature, cases in which there's
- described in the interaction, cases in which there's
   been progression from fairly modest disease to death
  - D-

A Yes.

Q I haven't seen anywhere in your reports or in the medical literature an analysis of if you took all of those 1,800 people and tracked their lung function

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over time what, if any, decline you would see; isthat correct?

A No, I haven't, and several reasons for that. First off, I did -- as you know, have a database for a while that was basically tracking the same sort of thing as in that paper.

Q That was a database of 550 people?

A Or whatever it was. I don't know. It's been called that by you guys. I don't think there was 550. I don't remember. Stopped using it because it was so sporadic. When I started working up at Libby eight days a month in 2004, closed my office, it sort of became irrelevant because we had a new database up there and it got to -- when I was in my office, then I would track them all because they were almost all down in my office, not all of them, but most of them, but then it just got so sporadic, so we didn't follow it anymore.

I have not -- we do not have a database that is adequate at this point at Libby to track that 18- -- the whole 1,800. And as you can imagine, a

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within short periods of time, several years. I think that's sort of the gist of it, and that happens frequently.

Q And by progression, do you mean a decline in lung function?

A Well, not necessarily. It may be a decline in lung function. It may be a significant change in the chest x-ray.

We have one of the largest data banks of CT -- HRCTs, high resolution CAT scans on asbestos patients anywhere. We have CTs on practically everybody. We have multiple CTs. So we have that data, so we can measure what's actually happened in various parts of the lung.

And so when I say that we're seeing progression in a lot of people, we are. And why some do and some don't, I have no idea.

Q Okay. You did a paper in 2004 where you tracked the progression of decline in lung function test scores for 123 of your patients, correct?

A Yes.

Q Okay. Have you -- there are approximately 1,800 people that have been diagnosed with asbestos disease in the CARD Clinic as a result of being exposed to Libby asbestos?

lot of it's bogged down in bureaucracy and grant things that we have no control over.

Q So to the extent that you have opinions that pleural disease caused by exposure to Libby asbestos is more -- leads to a more rapid decline in lung function than pleural disease caused by exposure to other types of asbestos, is it fair to say that's primarily based upon the 2004 paper you wrote?

A No, not entirely. I think, to explain that statement, first off, is we have a preponderance of pleural disease. My experience in looking at people from Hanford is that I really only had a couple of deaths in all of the years that I was doing that of Hanford workers and it was all from severe interstitial disease. There just -- there wasn't that much significant pleural disease, whereas, in Libby there's a tremendous amount of pleural disease.

And so you would expect, I think, the extent of it, that there would be people who will progress and die of that disease.

I have numbers from the mortality study which is only patients in CARD that died, so we had -- have good data on it. There's a lot of other ones that have died of pleural disease prior to that time, but there has not been a definitive study on the whole --

12 (Pages 42 to 45)

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of all the claimants of Mr. Lewis and Mr. Heberling's
that that's been done. Probably at some point in
time, it will get done.

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Q Okay. Have you done anything to analyze the differences in either the type of disease that people have or how severe it is as compared between Mr. Heberling's and Mr. Lewis' clients and the 850 people who aren't -- who have Libby asbestos disease who aren't their clients to see if there are any differences between those two groups?

A No, we haven't done a formal study of that.

Q Do you have any expertise or knowledge as to whether there are qualitative differences between asbestos disease patients who decide to pursue a lawsuit as compared to asbestos disease patients who don't in terms of their disease severity?

A I can't answer that question. I know that there was a whole flurry of lawsuits very early on in this process, but whether or not there was more than there would have been in the rest of the community or not, I don't know.

Q So you can't say whether the 950 people who are clients of Mr. Heberling or Mr. Lewis are different in significant ways from the 800 people who have Libby asbestos disease or not?

Page 48

- 1 type of asbestos-related non-malignant disease is not
- something that exists only as a result of being
- 3 exposed to Libby asbestos, correct?
  - A No, that's correct.
- 5 Q And you on Page 29 --
  - A Page 29 or paragraph 29?
- 7 Q Excuse me. Paragraph 29.
  - A Yes.
- 9 Q You're citing to something called the
- 10 Rosenstock text?
  - A Yes.
- 12 Q What is the Rosenstock text?

13 A That's a textbook by a lady in -- who's a 14 research physician at the University of Washington 15 and she's still there.

Q Do you know what, if any, role Dr. Laura Welch\* had in working on or editing that medical textbook?

19 A I do not.

Q The Rosenstock -- you cite the Rosenstock text for the proposition, In contrast to the mild effect of plaques on lung function, diffuse pleural thickening may result in more significant restrictive respiratory impairment.

I take it you agree with that statement?

Page 47

A I'm not in a position to make that -- any judgments on that. I do think that there are 950 claimants that they have who I know -- probably do know better because I've seen them more times are likely to follow the same path as the 110 that were in that mortality study.

Q That's your -- let me back up.

On paragraph 27 of your report, Page 13, you write, An overwhelming majority in the Libby cohort have not only pleural plaques, but also diffuse pleural thickening, a more serious form of pleural disease.

Do you see that?

A Yes.

Q Would you agree with me that diffuse pleural thickening is a disease process that has been described in the medical literature for at least thirty years?

A That's probably for thirty years, yeah, most of the stuff that I've read has been since the '80s. Well, 1980s. That's thirty years, isn't it?

- 22 Q 1980 is almost thirty years ago, unfortunately.
  - A That's what happens as you get older.
    - Q So diffuse pleural thickening as a disease, a

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- A Yeah, that's a fair statement.
- Q Okay. By plaques, I assume that you're talking about pleural plaques?

A Yes.

Q Okay. Would you agree with me that -- well, how would -- would you agree with me that pleural plaques by -- well, let me get some definitions.

What is your understanding of the term pleural plaque?

A Well, the pleural plaque is originally and currently, I guess, defined as -- or defined as an area of scarring and fibrosis generally on the parietal pleural with demarcated edges, and it doesn't really define the size of it very much, although for practical standpoints, most of them are four or five centimeters in diameter at the largest for the most part.

Q And would you agree with me that -- and I guess the Rosenstock text states this -- is that generally speaking pleural plaques only have a mild effect, if any, on lung function?

A You have to define pleural plaques under those terms as isolated non-confluent pleural plaques.

Q Would you agree with me that pleural plaques

13 (Pages 46 to 49)

	Page 50		Page 52
1	have been defined in the medical literature for at	1	Q So it talks about different diseases
2	least thirty years as well?	2	caused different non-malignant diseases caused by
3	A Yes, they have.	3	exposure to asbestos, correct?
4	MR. FINCH: Okay. We have been going a	4	A Yes.
5	little over an hour. I don't know about you, but I	5	Q Would you also agree with me that the 2004
6	like to try and take a short break at least once an	6	ATS statement on non-malignant asbestos-related
7	hour. Would this be a good time? I think this is a	7	diseases doesn't provide any guidance for how you
8	good time for me to break. Would you like to take a	8	would divide a non-malignant disease by severity as
9	break?	9	
			it relates to lung function decline?
10	THE WITNESS: Sure, whatever you want.	10	A I'm not sure I understand your question.
11	MR. FINCH: Okay. Why don't we take a	11	Q Yeah, it was a crummy question. Let me
12	five- or ten-minute break?	12	rephrase it.
13	THE VIDEOGRAPHER: We're going off the	13	You would agree with me that demonstration of
14	record. The time is now 9:32 a.m.	14	functional impairment as shown by either spirometry
15	(Recess.)	15	or total lung capacity or DLCO is not a requirement
16	(Ms. Bloom exits.)	16	to diagnose somebody with a non-malignant
17	THE VIDEOGRAPHER: We're back on the	17	asbestos-related disease, correct?
18	record. The time is now 9:43 a.m.	18	A That's true.
19	(Exhibit-5 marked for	19	Q So you can have asbestosis or pleural disease
20	identification.)	20	and have completely normal lung function tests,
21	EXAMINATION (Continuing)	21	correct?
22	BY MR. FINCH:	22	A That's true.
23	Q Dr. Whitehouse, do you have the Whitehouse	23	Q And so the 2004 ATS statement, whatever else
24	Deposition Exhibit-5 in front of you?	24	it does, it doesn't give you any guidance as to how
25	A The what?	25	you would characterize someone as having for
			you mound on an action account accounting from
	Page 51		Page 53
1	Page 51  O The Whitehouse Deposition Exhibit-5 in front	1	Page 53
1 2	Q The Whitehouse Deposition Exhibit-5 in front	1	purposes of lung function decline perspective,
2	Q The Whitehouse Deposition Exhibit-5 in front of you.	2	purposes of lung function decline perspective, whether they have severe asbestosis or severe pleural
2	Q The Whitehouse Deposition Exhibit-5 in front of you. A Oh, yes, I do.	2	purposes of lung function decline perspective, whether they have severe asbestosis or severe pleural disease, it doesn't speak to that, does it?
2 3 4	<ul><li>Q The Whitehouse Deposition Exhibit-5 in front of you.</li><li>A Oh, yes, I do.</li><li>Q And do you recognize that document, sir?</li></ul>	2 3 4	purposes of lung function decline perspective, whether they have severe asbestosis or severe pleural disease, it doesn't speak to that, does it?  A No.
2 3 4 5	<ul> <li>Q The Whitehouse Deposition Exhibit-5 in front of you.</li> <li>A Oh, yes, I do.</li> <li>Q And do you recognize that document, sir?</li> <li>A I do.</li> </ul>	2 3 4 5	purposes of lung function decline perspective, whether they have severe asbestosis or severe pleural disease, it doesn't speak to that, does it?  A No.  Q It doesn't give you any tests or ranges for
2 3 4 5 6	Q The Whitehouse Deposition Exhibit-5 in front of you.  A Oh, yes, I do. Q And do you recognize that document, sir? A I do. Q What is Whitehouse-5?	2 3 4 5 6	purposes of lung function decline perspective, whether they have severe asbestosis or severe pleural disease, it doesn't speak to that, does it?  A No.  Q It doesn't give you any tests or ranges for lung function test scores to say this person is
2 3 4 5 6 7	Q The Whitehouse Deposition Exhibit-5 in front of you. A Oh, yes, I do. Q And do you recognize that document, sir? A I do. Q What is Whitehouse-5? A That's the ATS. I think this is the is	2 3 4 5 6 7	purposes of lung function decline perspective, whether they have severe asbestosis or severe pleural disease, it doesn't speak to that, does it?  A No.  Q It doesn't give you any tests or ranges for lung function test scores to say this person is mildly impaired, this person is severely impaired, or
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14 (Pages 50 to 53)

Page 54 Page 56 1 A Other than that, I do not. 1 classification in both interstitial and pleural 2 Q Do you understand that the TDP divides the disease with a variety of diseases originally non-malignant -- the Grace TDP divides the starting in pneumoconiosis and black lung and coal 3 non-malignant diseases by severity in terms of the 4 miner's lung and then has been extrapolated as 4 5 asbestos disease subsequent to that. 5 decline in lung function test scores? A Yes. Q Okay. And is it -- it is a -- it is a 6 6 7 7 grading system for dividing chest radiographs for Q Okay. So there's a low level criteria where it doesn't require any kind of lung function decline pneumoconiosis caused by exposure to asbestos and 8 8 9 at all, correct? 9 various categories, correct? 10 A Right. 10 A Correct. Q And that would be category one or category 11 11 Q It's one of the things that it does? 12 12 two, correct? A Yes. 13 A And I'd have to look up all the categories 13 Q And have you ever in your clinical practice 14 again because there's As and Bs and --14 or otherwise used the ILO system in describing a 15 Q Why don't --15 chest x-ray, what a chest x-ray shows to another A -- things like that, but, yes, take your word doctor? 16 16 17 A Well, yes, I -- actually, the part of the ILO 17 for it. 18 Q The 2004 ATS statement, if you could turn in 18 system that relates to interstitial lung disease, I 19 there to Page 697. 19 pretty much agree with. That's the 1/0, 1/1, 2/1, 20 et cetera, et cetera of interstitial disease. A Okay. 20 There's far more difficulty with the pleural disease, 21 Q The second full paragraph on Page 697 refers 21 to something called HRCT. Do you see that? 22 particularly as far as what people see and how they 22 A Second on which side? 23 23 read it and things like that. 24 Q On 697. 24 Q Okay. Would you agree with me that in 25 reading chest x-rays generally, two people who are A Yeah. 25 Q Second full paragraph begins, HRCT and detect equally qualified and competent at reviewing x-rays 1 2 2 can come to different conclusions as to whether or early --3 A Okay. not the -- what the profusion level is on the ILO Q -- pleural thickening. scale for purposes of interstitial disease? 4 4 5 A Yes, they can. 5 A I got it. Q That's a phenomenon called interreader 6 Q Do you see that? 6 7 A Yes. 7 variability? Q HRCT refers to high resolution CAT scans --8 8 A True. 9 A Yes. 9 Q And would you also agree with me that same phenomenon, i.e., two doctors looking at the same 10 Q -- computed tomography? 10 x-ray that shows pleural disease can with the best 11 A Yes. 11 Q Okay. And then later on in the same column will in the world come to different conclusions about 12 12 13 in the next paragraph, the 2004 ATS statement authors 13 what that x-ray shows? write, A proposal has been put forward for a 14 classification system analogous to that of the ILO 15 Q But the -- do you have an understanding of 15 system for plain chest radiographs, but none has been how the ILO guidelines are promulgated? 16 16 widely adopted. 17 A You mean originally or --17 Do you see that? 18 18 Q Well, originally and then -- let's back up. 19 19 They were originally put out in 1980, A Yes. 20 Q This document was published in 2004. To your 20 correct? knowledge, has there -- well, let me back up. 21 21 A Yeah. 22 What's your understanding of what's the ILO 22 Q All right. Do you have an understanding of system for plain crest radiographs? how they came into existence? 23 23 A Well, the ILO system is an epidemiologic 24 A Oh, a bit, not a lot. They came in -- I'm 24 25 study or was designed as an epidemiologic study for 25 not sure that I do know. I think they came about

15 (Pages 54 to 57)

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- because of trying to use it as a goal for disability 2 for coal miners was the original which is why (inaudible), West Virginia, and I suspect that's -- I 3 4 think that's how it originally started. I'm not 5 absolutely certain of all that.
  - Q And one of the goals was that it was to create sort of a unified system of rules for how you can describe chest x-rays to another doctor in a way that's shorthand as opposed to both of you having to look at the film, correct?
  - A Yes, I guess -- I guess that was the original reason. I don't know the -- that one in particular, I'm not sure whether that was an original goal or not.
  - Q Okay. And what is your understanding of how the -- and the ILO was revised in about the year 2000, correct?
    - A Yes.

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- 19 Q It became publically available sometime after 20 that?
- 21 A It became what?
- Q Publically available. The ILO guidelines 22 23 from the year 2000 became publically available 24 sometime after the year 2000, right?
  - A Well, I know they're publically available.

doctor was asked to give an opinion about whether or not someone had pleural thickening versus pleural plaque, that doctor relied on the definition of pleural thickening in the ILO -- 2000 ILO guidelines that he or she was operating completely out of the bounds of mainstream medical science?

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- A They would be operating with what's written in the ILO guidelines.
- Q And that would be acceptable medical practice, correct?
- A That's a whole other issue because there's significant differences between what the ILO guidelines are and certain diffuse pleural thickening and confluent plaques and things like that that are at issue with the problems of these people that died with Libby asbestos.
- Q But I understand that you have some criticisms of the way the 2000 ILO guidelines defined pleural thickening versus pleural plaque, I take it?
  - A Yes.
- Q But you wouldn't say that a doctor who relied on the 2000 ILO guidelines for purposes of deciding whether someone had pleural plaques or pleural thickening was being completely arbitrary and not following accepted medical science?

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Were they not before that?

- Q At some point in the year 2000, the ILO quidelines were revised, correct?
- A Yes.
  - Q Did you have any role in revising those quidelines?
  - A Not at all.
- Q Do you have an understanding as to who the people were that made the revisions to those quidelines?
- A Not all of them, no.
- Q Do you understand that at least some of the people involved were experts in asbestos-related medical issues?
  - A Oh, I believe they were, yes.
- Q You wouldn't say that the -- if a doctor were to rely on the ILO guidelines for purposes of defining pleural disease that that doctor is outside the medical mainstream, would you?
- A Well, probably not, although there are -becoming evident with time more discrepancies relative to that particularly when you review the literature. There are -- well, there's exceptions to everything as you can imagine.
  - Q But you wouldn't say, for example, if a

Page 61

- A Those are two different parts of the question. I think you should separate them.
- Q Okay. Would you say that someone who relies on the 2000 ILO guidelines is not following accepted medical practice if they follow those definitions for purposes of trying to determine -- give an opinion about whether someone has diffuse pleural thickening or pleural plaques?
  - A No, they would be following the guidelines.
- 10 Q And that would be acceptable medical practice 11 to do so?
  - A I think there's very large exceptions in that relative to Libby asbestos and there's also a fair number or significant amount of exceptions to that in the medical literature, particularly McCloud, and we're talking -- we're talking about blunting and diffuse pleural thickening, so we might as well cut to the -- cut to the meat of this.
    - Q Sure.
  - A And McCloud only found, I think, 45 percent of the people had blunting with diffuse pleural thickening. I think there's one other where I can't remember the name of who wrote it in a similar vain. It also wrote that everybody that had diffuse pleural thickening had a prior pleural effusion and there's

16 (Pages 58 to 61)

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Page 62 evidence in the literature that that -- there are

more than one view of that, and for whatever reasons and I obviously wasn't privy to any of those

discussions, they selected that piece of information as opposed to McCloud's article which very well details the incidence of blunting associated with

diffuse pleural thickening.

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And that amazingly correlates almost exactly with what we have in Libby in these people who died.

MR. BERNICK: I'm sorry. Your voice trailed off a little bit, Dr. Whitehouse. What corresponded almost identically with the --

THE WITNESS: Oh, the McCloud numbers correlate almost exactly with the Libby numbers for the incidents of blunting as a criteria for diffuse pleural thickening. We have all these people with diffuse pleural thickening that don't have blunting.

Q (By Mr. Finch) Okay. Mr. Bernick probably has lots of questions about diffuse pleural thickening and blunting, but I'm just asking you in general --

MR. BERNICK: Don't count on it.

Q (By Mr. Finch) In general, if someone followed the ILO guidelines requirement for saying that blunting would be required to define something Q Okay.

2 A There is -- we actually -- other people in the CARD clinic are actually working on this and

3 4 trying to develop something that is simple because

5 the one that's out there takes over an hour to do a

CT, and if you think about that, you can read a CT in 6

Page 64

Page 65

7 about five or ten minutes and then you take an hour 8

and -- it isn't going to happen. 9

Q Nobody would use it?

10 A Nobody will use it, no.

Q Well --

12 A That's exactly what's happened.

13 Q Okay. So, I mean, my understanding of the 14 ILO -- the way the ILO system works is it's a big box 15 with sample films in it that you can compare 1/1

16 versus whatever x-ray you're looking at to see how those two things line up. Is that basically how it 17

18 works?

19 A Supposedly. 20

Q Okay. Supposedly and theoretically, that's how it works, right?

22 A Theoretically, that's how it works.

23 Q Okay. Some doctors follow that to a greater

24 or lesser degree, right? 25

A I would agree with you on that.

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as diffuse pleural thickening, that person would not be outside of the bounds of generally accepted medical practice, correct?

A Probably not.

Q Now, before we got into the discussion of blunting, there -- I'm still at the 2004 ATS statement. The statement says, A proposal has been put forward for a classification system analogous to that of the ILO system for plain chest radiographs, but none has been widely adopted.

Do you see that language?

12 A Yeah.

> Q And what they're referring to is a proposal has been put forward for a way to grade HRCT in a way that is descriptive much like the ILO system is descriptive for chest x-rays, correct?

A Correct.

Q Okay. And this statement was put out -well, the date on it is December 12, 2003, but that's almost six years ago.

To your knowledge, has there been a widely adopted way to classify high resolution CAT scans of the chest that is similar to the ILO system for x-rays?

A It hasn't been widely adopted.

Q Okay. But -- and there's not something similarly developed yet where somebody can quickly and easily take a picture of HRCT and this is what a 1/1 should look like or the equivalent of this is what diffuse pleural thickening should look like and compare it to some kind of master image that is widely adopted or easy to use, right?

A No, there isn't anything out there like that yet.

Q Okay. On Page 697, there is a column -- in the second column, there's something called -- the heading is Pulmonary Function Tests. Do you see that?

A Mm-hm, I do.

Q The third paragraph in that section says, In addition to diminished lung volumes, the carbon monoxide diffusing capacity is commonly reduced due to diminished alveolar-capillary gas diffusion as well as ventilation-profusion mismatching.

Do you see that?

A Yes.

22 Q Okay. And then it goes on to say, Although a low diffusing capacity for carbon monoxide is often 23 24 reported as the most sensitive indicator of early

25 asbestosis, it is also a relatively non-specific

17 (Pages 62 to 65)

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Page 66

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Do you agree with that statement?

A I don't entirely because I would agree that it's not a specific finding because there's basically two categories of things that will modify the diffusion capacity, but that could be separated out pretty quickly with the pulmonary function studies as to the etiology of the diffusion capacity abnormality.

- Q Well, first, there's -- actually, there's really two statements in that sentence, right, Dr. Whitehouse?
  - A Mm-hm. (Answers affirmatively.)
- Q The first one is a low diffusing capacity for carbon monoxide is often reported as the most sensitive indicator of early asbestosis.

Now, do you agree with that?

A I do agree with that that's a very sensitive -- not necessarily early asbestosis, but it may be the only indicator of pulmonary functionwise to correlate what you're seeing radiographically.

Q Okay. And sensitive and specific have defined meetings within the field of epidemiology, correct? Or let me back up.

Sensitive and specific have defined meanings

1 mismatches and interstitial lung disease, whether

seen or not seen on the film. Those are the two big 3 factors.

Page 68

Page 69

Q That affect that DLCO?

an article by O'Hare\* about that.

- A Those are the two things that affect.
- Q And obstructive disease can be caused by many things other than asbestos exposure, correct?
- A True, except that a recent article on obstructive disease was the most common abnormality associated with asbestos disease. I mean it was the most common pulmonary function abnormality. There's
- Q But you would agree with me there are lots of things that can cause obstructive disease in the lungs that aren't asbestos related?
  - A Surely.
- Q I mean, chronic obstructive pulmonary disease is something that can happen as a result of smoking, correct?
- A It may be due to emphysema due to smoking, but it may be also a manifestation of asbestos disease.
- Q What else -- what other -- what other things can cause obstructive disease other than asbestos exposure?

Page 67

within the medical literature, right?

A Yes.

Q All right. What is your understanding of sensitive?

A Well, specific means nailing it down to a single -- make it simplistic. Specific means you nail it down to one cause or something clearly definable, whereas, sensitivity means it's the abnormal, but there could be a bunch of causes.

- Q Okay. And so -- excuse me. Please finish.
- A That's fine.
- Q So if something is a non-specific finding -and here we're talking about DLCO, you said a little while ago that there are other things that can cause a reduction in DLCO besides asbestos-related disease, correct?
  - A That's true.
  - Q That would be smoking, for example?
- A Smoking is a minimal. I mean, that's so overblown it's unbelievable. In the literature, current smokers may be down, particularly in Australia literature, a small amount in their DLCO, but not to a significant degree.

Two things that make the difference is obstructive disease with ventilation-protrusion 1 A You mean other than smoking --

> 2 Q Other than smoking.

> > A -- and emphysema?

Chronic asthma can be for many, many years. If you have asthma that's never been treated, it could result in chronic obstructive disease. There's also a fair number of much less common diseases that can do it such as bronchiectasis and some pulmonary vascular diseases can do it.

Potentially if you have enough lung obstruction, you can get overexpansion and enough lung resection from surgery, you can get a little overexpansion and cause it, but for the most part, it's either emphysema, chronic asthma, or asbestos.

- Q Okay. Could you turn to Page 705?
- A 700 and what?
- Q 705 --
- 18 705. Α
- 19 Q -- of the 2004 ATS.
- 20 (Complies.) Α
- Q The carryover paragraph -- the bottom of the 21
- 22 first column carrying over says, Although pleural
- plaques has long been considered inconsequential 23 24 markers of asbestos exposure, studies of large
- 25

cohorts have shown a significant reduction in lung

18 (Pages 66 to 69)

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function attributable to the plaques averaging about 2 five percent of forced vital capacity even when interstitial fibrosis asbestosis is absent 3 4 radiographically. 5

Do you see that?

A Yes.

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- Q Would you agree with me that a -- what they're talking about here is a decline of five percent as seen over a population of people, not the decline of five percent in any individual?
- A Oh, I'm sure, yeah, it's a large population group. I don't know how big, but... (Pause.)
- Q If a forced vital capacity declines by five percent in an individual, that may or may not be clinically significant, correct?
- A Depends over what period of time. And you're talking about five percent of predicted or five percent of actual numbers? Because you lose a certain percentage every year.
- Q Well, I'm just talking about the literature cited by the ATS statement.

Do you know whether the five percent they're talking about is five percent of predicted or five percent over a longitudinal period of time?

A I do not know the answer to that. I'm not

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Alan C. Whitehouse, M.D.

- Q Would you agree with me that if you have pathologic specimens of someone's lungs, you can definitely determine whether or not they have a non-malignant asbestos-related disease or not?
  - A No, you can't.
  - Q You cannot?
- A No, because frequently you cannot find the asbestos fibers except for in very sophisticated techniques in the lung, and so many of the pathologic specimens in people known to have asbestosis do not turn up asbestos bodies or asbestos fibers.
  - Q Have you ever heard pathology described as the gold standard for determining whether or not somebody has interstitial fibrosis?
- A I haven't heard that. I'm not sure I'd agree with it either.
- Q Okay. So you would -- you would dispute the idea that pathology would be the best indicator as to whether or not someone has an asbestos-related non-malignant disease?
- A I think the best indicators are what we do day in and day out. We take an environmental history, we look at the x-rays, listen to the patient's chest, we look at the pulmonary functions, and make that decision, and I think we're probably

Page 71

familiar with those articles.

Q Okay. At the bottom of that paragraph, the ATS writes, Even so, most people with pleural plaques alone have well-preserved lung functions, and they cite to a study.

Do you agree with that?

- A I don't have any problem with that.
- Q Do you agree with me that the medical literature as it relates to asbestos-related diseases is quite extensive?
  - A It's voluminous.
- Q And do you agree with me that equally qualified doctors can read the same literature and come to differing views about asbestos-related medical issues?
  - A Certainly.
- Q Are you familiar with the debate in the medical literature about whether you can attribute lung cancer to asbestos exposure in the absence of underlying asbestosis?
- A I've seen that. I don't know that I have an 21 22 opinion about it.
- 23 Q Okay. You are -- you're familiar with the concept of pathology, right? 24 25
  - A Certainly.

right almost all the time.

Q Okay. So is it fair to say that you do not rely on pathology for your opinions about the severity or the distinctness of pleural disease caused by exposure to Libby asbestos as compared to pleural disease caused by other asbestos?

A No, except that I have seen some things on thoracoscopy photographs on the lungs which I have in my collection of photographs from a surgeon that I worked with in Spokane that demonstrates some things that are unusual and look different, but they aren't documented beyond that point, but... (Pause.)

(Mr. Stansbury exits.)

- Q (By Mr. Finch) Who was the surgeon you used to work with in Spokane?
  - A Vern Holbert\*.
- Q Would you agree with me that from the perspective of pathology, there is no difference between pleural disease caused by exposure to Libby asbestos and pleural disease caused by anything else?
- A I think there may be, but I can't tell you 21 22 for certain. We see a lot more inflammatory disease.
- We see plaques that are scarlet red, very highly 23
- 24 inflamed, which correlates with a high degree of
- 25 chest pain and pleurisy in the people from Libby, and

19 (Pages 70 to 73)

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Page 74

we see that when we look at the photographs and it's described by the surgeon that I'm referring to, who actually I've known for many, many years because I practiced in Spokane.

- Q Okay. But you haven't taken pathology from people who died of -- according to you, died as a result of pleural disease caused by exposure to Libby asbestos and compared that to pathology taken from people who have pleural disease caused by other types of asbestos exposure?
- A No, although those specimens are being collected.
- Q But you haven't -- in any of your academic writings or in any of your reports, you have not made any kind of comparison of pathology between the asbestos disease caused by exposure to Libby asbestos and asbestos disease caused by exposure to anything else?
- 19 A No.

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Q Okay. So you can't say that there's anything that is distinct or different about asbestos disease caused by exposure to Libby asbestos as compared to asbestos disease caused by exposure to some other type of asbestos from the perspective of a pathologist relying on pathological evidence?

1 study to be valid, you have to define the cohort

- upfront and follow them over time to see how --
- whatever it is you're trying to determine has an 4
  - affect on them has an impact?
    - A It can.
  - Q You're familiar with the Selikoff study of the insulators that was done by Mount Sinai, correct?

Page 76

Page 77

- Q That's an example of a cohort study?
- A Yes.
- 11 Q Would you agree with me that your -- the people described in your 2004 paper, that's not a 12 13 14
  - A No, I think in a sense it is because of the way it was selected. It was selected as every patient that came into my office that had an asbestos disease, had zero pulmonary function studies every year, and so looking at that cohort, I just looked at everybody that had had two pulmonary function studies over a period, and as it turned out, it was over a period of a number of years, but -- so that's a cohort.
  - Q Well, it wasn't defined -- you didn't start out the way Selikoff did, with defining the cohort people who were exposed to asbestos and then

Page 75

A Probably not, but I don't have enough

Q Okay. Have you read Dr. Sam Hammer's report in this case?

evidence to say one way or the other at this point.

- A Yes.
- Q His opinion is based on the work that he's done, there's no difference from the pathology between asbestos disease seen in Libby patients and asbestos disease seen elsewhere?
  - A I believe that's his opinion, yes.
- Q And you're not in a position to dispute that?
- A No. I have a high regard for Sam Hammer. 12 13 (Mr. Stansbury returns.)
  - Q (By Mr. Finch) Do you have an understanding of the term used in epidemiology called a cohort study?
    - A Yes.
  - Q And what's your understanding of a cohort study?
  - A Well, a cohort study is a group of people that have something that you want to study and you put together in that cohort, either with or without controls, the nature of whatever it is you're studying and detailing it and outlining it.
    - Q So would you agree with me that for a cohort

following them over time, correct?

- A These were already people that I knew had asbestos abnormality on their x-rays and had the exposure history on them.
- Q Okay. So the selection criteria wasn't -wasn't controlled by a level of exposure. It was just people who happened to have two or more pulmonary function tests?
- A Basically that was it. It was a very simple study.
  - Q What did -- strike that.

In your expert witness report, you described some of the medical literature about the differences between chrysotile asbestos and other amphiboles asbestos being productive of mesothelioma or lung cancer. Do you recall that section of your report?

- A Repeat, please, so I'm sure --
- 18 Q In your report -- in your report, you have a section where you describe what your view of the 19 20 medical literature is about whether or not chrysotile 21 asbestos is more or less likely to cause mesothelioma 22 or lung cancer than amphiboles asbestos?
- 23 A Yes.
- 24 Q Did you read Dr. Frank's testimony in his 25
  - deposition last week or two weeks ago --

20 (Pages 74 to 77)

Page 78 Page 80 A I did. 1 1 court. 2 Q -- on that point? 2 Would you agree that 9,500 is a good A Mm-hm. (Answers affirmatively.) approximation of the people in Lincoln County, 3 3 4 Q Did you have any understanding that the 4 Montana, who were likely exposed to Grace asbestos? 5 Berman and Crump\* work that you refer to at 5 A No. paragraph 57 of your report was reviewed by an EPA Q What would be your figure for that? 6 6 science advisory board this past summer of 2008? A I have absolutely no idea. There were 7 7 A I was not aware of that. hundreds and hundreds of people that worked in the 8 8 9 Q Dr. Frank was aware of it, correct? 9 Libby dam that lived there for a couple years. There was a lot of construction going on at that point in 10 A Yeah, no, I do understand he was. 10 time. There was a very transient population that Q Okay. And his -- he agreed with the EPA 11 11 came in and out at that point. There could be in the Science Advisory Board that the Berman and Crump work 12 12 13 that attempted to quantify the differences between 13 thousands. I just don't know the answer to that. 14 fiber type in causing mesothelioma or lung cancer was 14 There's also a vacationing spot there. There's been a lot of people that would spend summers 15 weak? 15 up there that are not included in that population, so 16 A He didn't dismiss it. He said that the 16 school was still out on it basically in his -- in his 17 the actual number of exposed people is probably a lot 17 deposition. higher but are not included in any of Grace's figures 18 18 19 Q Right. 19 because they excluded anybody that wasn't a permanent 20 resident. And the EPA Science Advisory Board determined 20 the scientific basis that is laid out on in the 21 21 Q Okay. So I think I pulled that figure out of 22 technical document -- and they're referring to the your report. 22 23 Berman and Crump work -- in support of their method 23 Would you agree with me that at least 9,500 24 to attempt to quantify the difference between fiber 24 people were exposed to Libby asbestos? types is weak and inadequate. That was his 25 A Oh, I assume that that's probably -- you 25 Page 79 Page 81 understanding of what the EPA Science Advisory Board know, I don't think we really know for sure. I know 1 determined, correct? 2 2 that -- that it's probably more than that, but on the 3 A Correct. 3 other hand, I don't know whether the people that Q And I take it you weren't asked to lived up in the far extremes of the county were ever 4 4 5 5

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participate in that science advisory board review of differences between fiber types, correct?

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Q And you would agree with me that it's still the official position of the United States government that chrysotile is equally likely to cause mesothelioma as amphibole asbestos?

A I don't think it says exactly that. It says that the information -- that the data was weak. It doesn't say that it is not. It just says the school is still out on it, that Arthur's -- Dr. Frank's comments on that reflected that.

MR. FINCH: Let's mark this as the next exhibit.

> (Exhibit-6 marked for identification.)

Q (By Mr. Finch) Dr. Whitehouse, this is an exhibit I used with Dr. Frank. I put it together from a combination of either statements in your expert witness report or statements that the Libby claimants' lawyers have made in papers filed with the exposed to it as far as I know. It's a big county.

Q And then the ATSDR came in and did some screening a few years ago for -- to determine what -how many people had x-ray abnormalities as a result of exposure to asbestos, right?

A And that was a -- they studied 6,000 and there was a significant number that were never looked at, and of those 6,000, there were a fair number of people that were not Lincoln County residents. They were people from Spokane that used to live there or from other parts of Montana, and I forget the exact number that had abnormal x-rays. I think it was 19 percent or 17 percent, so it was about 1,000 or more.

Q Okay. Could you turn to Page 30 in your expert report?

A Sure. Page 30?

Q Page 30. It's Page 30. It's -- I think it's paragraph 35. Paragraph 35 runs on for several pages. It's Page 30.

A Okay.

25 Q See at the top of the page, the Peipins, it

21 (Pages 78 to 81)

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Page 82

talks about the 9,500 people --1 2

A Right.

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Q -- from Central Lincoln County?

So I take it that all of your opinions about pleural disease caused by exposure to Libby asbestos are valid only for the people who have asbestos-related disease, and you're not making any conclusions or analyses about the entire cohort people who were exposed to Libby asbestos; is that correct?

A Well, not really. I guess the best way to say that is that I'm sure that there are a fair number of people out there still that have not been discovered and may have abnormalities on their films, but I'm not drawing any conclusions about that because I haven't had a chance to study them.

- Q Okay. So you're only drawing conclusions about -- your conclusions are only valid with respect to people who have already been diagnosed with asbestos-related disease; is that correct?
  - A That's correct.
- 22 Q All right. And then the second page of this, 23 there's --
  - MR. LEWIS: Second page of what,

25 Counsel?

Page 84 Q Okay. Would you agree with me that your 1

- opinions about someone who has been diagnosed with an
- asbestos-related non-malignant disease as a result of 3
- 4 being exposed to Libby asbestos, that that person
- would have a probability of death are based on the 5
  - CARD mortality study?
- 7 A I'm only going to base that on the ones that 8 I know more about which is the Libby claimants, the 9 950 there. I would point out one other point in this is that there's 1,800 clinic patients with a 10 diagnosis. There's also another three or four
- 11 12 hundred that have been screened and do not have 13 disease.
- 14 Q Do not have disease?
  - A Do not have disease, but they're also part of the clinic.
  - Q But there's -- there's 1,800 people that are part of the clinic and there's 950 of them that are Libby claimants and you have more familiarity with that group than the 850 diseased patients that you see, but aren't the Libby claimants, correct?
  - A That's true and particularly since there's been a lot added in the last year or so and I've been working less up there.
    - Q And I believe I asked you this this morning,

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MR. FINCH: Second page of Whitehouse Exhibit-6.

Q (By Mr. Finch) You have stated in your report and elsewhere that there's approximately 1,800 CARD Clinic patients with asbestos-related disease?

A Yeah, that's the number that I got from the -- you know, the nurses that run the place about six months ago. They didn't have an exact number.

Q Okay. Would you expect that those 1,800 are largely overlapped with -- whether the exposed population was 9,500 or 6,600 or 10,000, that the 1,800 or the substantial majority of those people are a subset of the exposed population?

A I would think so, but there's a certain number of them that are not part of that Lincoln County population, above, anymore. They were at one time, but they're not now. They live -- there's a lot of patients in Spokane, in Missoula, in Kalispell, and some in Great Falls, and then we get patients all over the country coming back that used to live there, so -- and I don't know the breakdown

in numbers. I have no idea what it is. Q Okay. Could you go to the last page about this -- last page of Whitehouse Exhibit-6?

A Okay.

but you haven't done anything to compare and contrast 2 either the type of disease or the severity of the disease between the 850 other patients and the 950 who are Libby claimants, correct? 4

A No.

Q You haven't -- you have not done that, 6 7 correct?

A No, I have not.

Q Okay. And is it correct that you hold the opinion that someone who is diagnosed with a non-malignant asbestos disease caused by exposure to Libby asbestos is more likely than not going to die

13 from an asbestos-related disease?

A Out of that 950?

Q Out of the 950 or the 1,800?

16 A Will you read -- repeat the guestion again.

Q Sure.

18 A I want to make sure I get it right.

19 Q Do you have an opinion -- do you have an 20 opinion to a reasonable degree of medical certainty

that for the 950 Libby claimants who have been 21

22 diagnosed with a non-malignant asbestos-related

23 disease, that each one of them is more likely than

24 not going to die from an asbestos-related disease?

25 A The death rate, when we've gone through the

22 (Pages 82 to 85)

Page 85

Page 86 Page 88 1 death certificates in all of these people, it's 1 thickness, the non-malignant ones, the pleural 2 something like 57 percent -- or I think it was 52 thickness, the blunting plaques, et cetera. We did percent on best information, 57 percent was 3 it independently. 3 4 significant association with asbestos disease -- I 4 (Ms. Bloom returns.) 5 Q (By Mr. Finch) Okay. Let me see if I 5 think that group of people has the same breakdown in percentages as the 950 -- approximately a third understand this. You started out with 227 people who 6 6 7 miners, and the balance are community members and 7 were CARD Clinic patients -family members. Community members are the 8 A Yes. 8 majority -- I think you can make the extrapolation 9 9 Q -- that had died, right? having looked at those people myself, that most of 10 10 A Died through last year. the people that died are my patients, looking at Q Through last year. 11 11 those, then we're going to see the same thing in the 12 And this is the mortality study that you're 12 13 950 and so that there is a high probability or not a 13 relying on for your opinion as to probability of 14 high probability, there's probability that they're 14 death, correct? A That's right. 15 going to die more than 50 percent from asbestos 15 16 disease. 16 Q All right. Then you excluded 41 of them for 17 17 various reasons, correct? Q Okay. What about related --18 A And then add to that the cancers on top of 18 A Well, basically, they either didn't have any 19 it. 19 asbestos diagnosis to begin with, we didn't have a death certificate, couldn't get one, didn't have a 20 Q What about the 850? The 850 on this that 20 aren't -chart, didn't get chest x-rays. There's a lot of 21 21 reasons why, but unless we had a fairly complete set A The 850? 22 22 of data, we didn't -- they weren't included. 23 Q Yeah. 23 24 A I'm not going to draw any conclusions. I 24 Q Okay. And that left you with 186 people? don't know anything about them. 25 25 A Right. Page 87 Page 89 MR. FINCH: Okay. This would be a good Q And then of that, 34 of them died of 1 1 2 mesothelioma or some other asbestos-related type time to take another break. 3 THE WITNESS: Okay. cancer, right? MR. FINCH: I just want one for 4 A Mm-hm, yes. 4 5 personal reasons. Why don't we come back in five 5 Q And then you got 76 that were nos and 76 that were yeses, right? 6 minutes? 6 7 7 THE VIDEOGRAPHER: We're going off the A Yes, exactly the same number. Sort of odd. 8 record. The time now is 10:30 a.m. This is the end (Mr. Longosz returns from recess.) 9 of disk number one in the continuing deposition. 9 Q (By Mr. Finch) What is it -- what is it --10 10 (Recess.) who determined what versus a yes or a no? That was 11 THE VIDEOGRAPHER: We're back on the 11 you? A And Dr. Frank. 12 record. The time is now 10:37 a.m. This is the 12 beginning of disk number two in the continuing 13 Q Well, he testified that he looked at the 13 14 deposition of Dr. Alan Whitehouse. 14 x-rays on the 76, but that you made the determination 15 (Exhibit-7 marked for 15 as to whether or not --A Well --16 identification.) 16 **EXAMINATION** (Continuing) 17 17 Q -- there was a -- the death was due to an 18 BY MR. FINCH: 18 asbestos-related disease? 19 Q Dr. Whitehouse, I've put what's been marked 19 A Yeah, actually --20 as Whitehouse Exhibit-7 in front of you. 20 MR. LEWIS: Just a -- just a second. Object to that on the grounds it's not put in a form A Yes. 21 21 of a question and it's just a comment on Dr. Frank's 22 Q What is that document? 22 23 testimony and should be strickened from the record. 23 A Oh, that's a -- that's a counting sheet that was done basically on the basis of Dr. Frank's and my 24 MR. FINCH: Let me rephrase the 24 25 25 reading all these x-rays and these people for pleural question.

23 (Pages 86 to 89)

Page 90

Q (By Mr. Finch) How did you determine that someone was a yes versus a no?

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A Dr. Frank actually did not do that part. I did that part of it. I misspoke. Basically what I did was I -- we looked at the death certificates or I looked at the death certificates. I looked at the chart, the x-rays, and made basically a decision based on all that information put together and some of my -- made a decision that it was probably a contributing cause and others which it was a direct cause, so you'll note that there was actually different percentages for the direct cause versus the contributing cause.

I had the advantage of the fact that I knew almost all of these patients within -- with just the exception of a few because I had seen so many of them over the years previously. That's how it came about.

- Q Okay. And what standard did you use to determine whether or not someone died as a result of a non-malignant asbestos-related disease? Did you use a substantial contributing cause standard or did you use some other standard?
- A I used the best available information, sort of an approach similar to what Selikoff did, tried to reduplicate his studies with the insulators and I --

Page 92

- 1 A We didn't use the contributing cause in the final numbers, okay, because that's always subject to
- a lot of discretion. What we did or what I did
- 4 basically was to make certain that their death was
- 5 directly caused in some form or another by their
- asbestosis. That means that having looked at their 6
- 7 x-ray and their pulmonary functions and all their
- 8 charting, that they had severe disease, and then they
- 9 had to have some sort of a terminal event in which
- 10 either the asbestosis killed them because they became
- 11 a little bit more disabled or because of the fact
- that it led to another problem that killed them such 12
- 13 as a pneumonia or severe cor pulmonale resulting from
- 14 pulmonary hypertension, things like that. 15
  - Q Okay.
  - A And that's how the decisions were made.
- 17 Q Okay. Attached to your report and,
- 18 unfortunately, it doesn't have a page on it, but it's
- 19 kind of near the back, there's something that is 20
  - entitled 116 Mortality List.xls.
- 21 A Let's see what number it is.
- Q It's --22
- 23 A Where is it?
- 24 Q In my copy of the report, it was -- it was
  - before your references. It wasn't in an exhibit to

Page 91

a lot of them were obvious. They were asbestos deaths. They were signed out, their death

certificate, as asbestosis.

There was a fair number in which they would say a terminal pneumonia, but they had severe asbestosis and that was considered an asbestos death, and there were a number in which they called COPD and they really didn't have COPD.

This, unfortunately, is one of the problems with death certificates is that family docs not only in Montana, but in Spokane and everywhere else call everything COPD that dies of respiratory disease, and that's where you have to fare it out and look at all the data before you can make that judgment because it was asbestos related.

Q And when you were making the judgment as to whether or not it was asbestos related, how did -what standard were you using to do that? Were you saying it's only asbestos related if I conclude to a reasonable degree of medical certainty that the asbestos-related disease was the cause of the death or did you also say that a death of asbestos disease related if you concluded to a reasonable degree of medical certainty that the asbestos disease

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your report. It was just --2 A Is that it?

MR. LEWIS: Is this it?

4 A 116 Mortality List?

Q (By Mr. Finch) Yes.

6 A Excel?

7 Q Yeah.

What is that? What is that document,

Dr. Whitehouse?

10 A Well, that document is the -- first off, the 11 names of the people that are clients, plus the

initials of people that are not clients. It gives a 12

13 diagnosis date, whether it was on the death

14 certificate they died or whether it was best evidence 15 that caused it, who signed the death certificate,

16 where they lived, things like that.

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Q Okay. And it's --

18 A And it's basically the demographics of 19 everybody.

20 Q Okay. This is the demographics of the people 21 involved in the mortality study; is that correct?

A Yeah, that's right. And if you'll note that

23 a lot of them, even though I didn't sign most of the death certificates because a lot of them died in 24

25 Libby, I had seen them in enough proximity that I

24 (Pages 90 to 93)

Page 93

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contributed to the death?

Page 94 Page 96 knew -- had seem them in Spokane and taken care of 1 Q And sub means somebody who was a 2 them in Spokane, so I frequently did not sign the subcontractor that worked at the mines? death certificates myself. 3 3 A Yeah. 4 Q Okay. Let me just -- let me just understand 4 Q And then FM means family member? 5 what this is. 5 A Yeah. This is 116 people --Q Are you familiar with the medical literature 6 6 7 A Right. 7 that exists that shows that females or other family Q -- that you determined their -- that their members of workers who were occupationally exposed to 8 8 9 death was due to an asbestos-related disease; is that 9 asbestos can be exposed to substantial amounts of asbestos in the home? 10 right? 10 A Yes. 11 A Oh, sure. 11 12 Q And this would include both the cancers and 12 Q Would you agree with me that generally 13 the non-cancers, right? 13 speaking of the people in Libby, the people that 14 A Yes. 14 worked at the mine were exposed to significantly more Q Okay. Why the discrepancy between the 116 asbestos than the community exposures? 15 15 shown here and if you add 76 and 34, you come up with A In certain parts of the mine, almost 16 16 110? 17 certainly. 17 18 MR. BERNICK: It's because you can't 18 Q And would you also agree with me that the 19 add, Nate. Let the record reflect that was in gest. 19 family members of people who were occupationally MR. LEWIS: Perhaps it's my exposed to Grace's asbestos in and around Libby 20 20 shortcoming, Counsel, but I don't understand the probably had higher exposures on average than people 21 21 who just had pure community exposures? question. I don't --22 22 A That is undetermined. It probably is true, 23 Q (By Mr. Finch) My question is -- my question 23 24 is: Is there -- are there six people on this 24 but it's undetermined. document, 116 Mortality List.xls that either didn't 25 Q Okay. And then C, I take it, stands for 25 Page 95 Page 97 die as a result of asbestos-related disease or community exposure? 1 1 2 there's a miscounting or what? A Right. 2 3 A Those were the six that we took off to get 3 Q And what is C or FM? Is that just where you 4 didn't know or couldn't tell? 4 final numbers. Q Okay. All right. 5 A Sometimes you couldn't tell. 5 6 A Okay? 6 Q Okay. Going back to the counting sheet which 7 Q I understand that now. 7 is Exhibit-7. 8 So this would be the --8 A Mm-hm. (Answers affirmatively.) 9 A These are the ones that, originally, I 9 Q For the lung function tests, I take it these are all related to the 76 who had non-malignant thought were and then --10 10 diseases, correct? 11 Q And then you took off six? 11 A Well, and then Arthur gave me some static 12 12 A Yeah. about a couple of them and we -- because he had 13 13 Q And you mention in your answer -- some of your answers a little while ago, you were talking looked at a lot of these as well and then we narrowed 14 it down by, you know, going through it a second time 15 about people of the 76 who had died as a result of 15 asbestosis. Do you recall that? 16 to come out. 16 17 A Mm-hm. (Answers affirmatively.) 17 The problem was that the first time I did Q How many of them died as a result of this was contributing cause and the second time I did 18 18 it was more directly as the direct best estimate of asbestosis versus died as a result of pleural 19 19 20 underlying disease that was the causing factor. 20 disease? Q Okay. Now, let me make sure I understand the 21 21 A We -- you know, basically there were less 22 categories. 22 than a third that had -- even had interstitial disease when you looked at the x-rays. They may have 23 Worker W means somebody who worked for W.R. 23 24 had some interstitial disease on CT, but the majority 24 Grace? 25 of them had pleural disease. 25 A That was a miner, mm-hm.

25 (Pages 94 to 97)

Page 98 Page 100 1 We finally came to the conclusion that when 1 A -- pure pleural, minimal IF? Okay. 2 you excluded some of the ones that had it on CT, that Q And IF stands for interstitial fibrosis? probably eight of them and as many as eleven or 3 4 twelve died of pure pleural disease. It's hard to 4 Q Okay. Now, back to the first page of 5 5 determine for sure. Exhibit-7. That is lung function tests. Am I And some of them we didn't have CT scans on, correct that of the 76 that died, 53 percent of them 6 6 had a reduction of either FVC or TLC below 65 percent 7 and so you really didn't know for sure whether 7 there's underlying disease that you didn't see in the 8 of predicted? 8 9 scans, but only a third of them had interstitial 9 A Repeat that. disease on their plain films, so... (Pause.) 10 10 Q Yeah. You say -- what the document says is Q Okay. So a third of them had interstitial 29 have only DLCO, less than 65. 11 11 disease on x-ray; is that right? 12 12 A Right. 13 A Yeah, and it was all 1/1 -- 1/0 or less. 13 Q 29 of 61 have only DLCO, less than 65. 14 Q And what about -- what -- in addition to that 14 A Right. third, were there any that had interstitial disease 15 Q My question is: Is the flip of that true, 15 that was visible on HRCT, but not visible on x-ray? i.e., do 32 out of the 61 have either forced vital 16 16 A Of that third? capacity or total lung capacity less than 65 percent? 17 17 A Well, we know we have 28 listed here and 12 18 Q No, of the whole 176 people. 18 19 A Oh, yeah, there were more that had it on CT 19 with TLC. That's 40. I'm not sure that I can answer scan that we did not see on the plain films, yes. 20 your question on the basis of that. 20 Q So those people had interstitial disease too? 21 21 Q Are you finished with your answer? A Yeah, they had minimal interstitial disease, 22 22 A Yeah. 23 but, yes, they did. 23 Q Okay. 24 Q Okay. So if it was -- if your test was, does 24 Oh, I was waiting for you. Α someone have interstitial disease observable by x-ray No, I thought you -- I thought you were still 25 25 Page 99 or CT scan, is it correct that a majority of the looking at the document and was going to add 1

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Page 101

2 people in the 76 -- the group of 76 had interstitial 3 disease?

A First off, you have to define what is significant in interstitial disease because according to the ILO or the ATS standards, a 1/0 or 0/1 doesn't count as an independent diagnosis, and we're counting a lot of those for 0/1s or 1/0s, so what absolute -the actual number that had significant interstitial disease, I think it's in here somewhere.

Q In the counting sheet, you're looking at Exhibit-7, Dr. Whitehouse?

13 A Yes. I'm trying to remember where it is. 14 Thirteen --

Q What page?

A -- another nine that had moderate.

Q What page are you looking at?

A At the second page, the back of the second 18 page, the top of the thing. 19

20 Q Does it say Page 2 of 6 at the bottom there?

21 A Page 4 of 6.

22 Q Page 4 of 6?

23 A At the top. See at the top where it says

24 group --25

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Q Got it.

2 something. Sorry about that.

One of your -- in addition to the blunting requirement, one of your major criticisms of the TDP criteria for severe pleural disease is that -- and for that and the other non-malignant diseases, it doesn't allow for reduction of DLCO as a basis for qualifying for the compensation, correct?

A That's correct.

Q You would agree with me to the extent that is unfair or unequal or improper, whatever in fairness about that exists, would equally apply to people who were exposed to Grace asbestos outside of Libby as in Libby?

A You know, I don't know enough about any of the exposures of the people that were exposed outside of Libby to really draw any decent conclusions on it, you know. I mean, I understand Libby guite well and I understand chrysotile and the forms that I've seen it, but I'm not sure that I can tell you about it.

I would suspect that it's probably similar,

22 but I don't know for sure.

MR. FINCH: All right. I am just about done. What I'm going to do is mark very quickly a set of references from the medical literature that 25

26 (Pages 98 to 101)

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	Page 102		Page 104
1	I that you cite in your various parts of the	1	A Yeah, mm-hm.
2	report. I'm not going to ask you any questions about	2	Q The next exhibit, Exhibit-11
3	them. I just want to make sure I've got the right	3	A Mm-hm. (Answers affirmatively.)
4	documents to make sure I know exactly what you're	4	Q is titled it's from the Journal of
5	citing, so if we take a two-minute break off the	5	Occupational Medicine and Toxicology?
6	record, I can get my colleague to mark all these and	6	A Yes.
7	then we can just hand them to you and I can just go	7	Q It's a paper by Susan Miles?
8	through them in probably five minutes or so.	8	A Yeah, it's quoted in the article, I think, as
9	THE WITNESS: Sure.	9	Yates.
10	THE VIDEOGRAPHER: We're going off the	10	Q It's, Clinical Consequences of
11	record. The time is now 10:56 a.m.	11	Asbestos-Related Diffuse Pleural Thickening: A
12		12	· ·
	(Exhibit-8 through Exhibit-14		Review. Is this something that you cited and relied
13	marked for identification.)	13	on in one of your reports?
14	THE VIDEOGRAPHER: We're back on the	14	A Correct.
15	record. The time is now 11:01 a.m.	15	Q What is Whitehouse Deposition Exhibit-12?
16	Q (By Mr. Finch) Dr. Whitehouse, do you have	16	A Lung Function Testing: Selection of
17	Whitehouse Exhibit-8 in front of you?	17	Reference Values.
18	A Have what?	18	Q This is an American Thoracic Society
19	Q Whitehouse Deposition Exhibit-8 in front of	19	statement, correct?
20	you?	20	A Yes.
21	MR. LEWIS: This one.	21	Q This is something you cite and rely on in
22	THE WITNESS: Oh, this one.	22	your expert report?
23	A Yes, I do.	23	A In part, yes.
24	MR. LEWIS: Can you just identify it	24	Q Whitehouse-13 is something is an article
25	for the record, please?	25	entitled, Asbestos-Induced Pleural Fibrosis and
1	Page 103	1	Page 105
1	MR. FINCH: Yeah, this is the	1	Impaired Lung Function, David Schwartz, et cetera?
2	MR. FINCH: Yeah, this is the Q (By Mr. Finch) Do you recognize this as	2	Impaired Lung Function, David Schwartz, et cetera?  A Yes.
2	MR. FINCH: Yeah, this is the Q (By Mr. Finch) Do you recognize this as the it's an article entitled, Changes in the	2	Impaired Lung Function, David Schwartz, et cetera?  A Yes.  Q That's a document that you cite and rely upon
2 3 4	MR. FINCH: Yeah, this is the Q (By Mr. Finch) Do you recognize this as the it's an article entitled, Changes in the Normal Maximal Expiratory Flow-Volume Curve with	2 3 4	Impaired Lung Function, David Schwartz, et cetera? A Yes. Q That's a document that you cite and rely upon in your expert report?
2 3 4 5	MR. FINCH: Yeah, this is the Q (By Mr. Finch) Do you recognize this as the it's an article entitled, Changes in the Normal Maximal Expiratory Flow-Volume Curve with Growth and Aging. The first lead author is Knudson?	2 3 4 5	Impaired Lung Function, David Schwartz, et cetera?  A Yes.  Q That's a document that you cite and rely upon in your expert report?  A Yes.
2 3 4 5 6	MR. FINCH: Yeah, this is the Q (By Mr. Finch) Do you recognize this as the it's an article entitled, Changes in the Normal Maximal Expiratory Flow-Volume Curve with Growth and Aging. The first lead author is Knudson? A Yeah, this is the where the pulmonary	2 3 4	Impaired Lung Function, David Schwartz, et cetera?  A Yes.  Q That's a document that you cite and rely upon in your expert report?  A Yes.  Q Whitehouse-14 is an article 1992 article
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2 3 4 5 6 7 8 9 10 11 12 13 14	MR. FINCH: Yeah, this is the Q (By Mr. Finch) Do you recognize this as the it's an article entitled, Changes in the Normal Maximal Expiratory Flow-Volume Curve with Growth and Aging. The first lead author is Knudson? A Yeah, this is the where the pulmonary norms come from. Q This is the pulmonary norms for spirometry that you use; is that correct? A Yes. Q The next exhibit, Whitehouse Exhibit-9, this is a paper by entitled, Radiographic ILO Readings Predict Arterial Oxygen Desaturation During Exercise in Subjects with Asbestos. This is a paper you cite	2 3 4 5 6 7 8 9 10 11 12 13 14	Impaired Lung Function, David Schwartz, et cetera?  A Yes.  Q That's a document that you cite and rely upon in your expert report?  A Yes.  Q Whitehouse-14 is an article 1992 article by Lilis Miller, et al., The Effect of Asbestos-Induced Pleural Fibrosis on Pulmonary Function: Quantitative Evaluation?  A Yes.  Q That's an article you cite and rely on in your expert work in this case?  A Although is this '91 or the '92 one?  Q This is the '92 one. You cite both
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27 (Pages 102 to 105)

Page 106 Page 108 1 **EXAMINATION** 1 A Jon Heberling, the attorney, thought it was a 2 BY MR. BERNICK: good idea if I reviewed them. Q Mr. Finch is reminding me that this is not a 3 Q Good morning, Dr. Whitehouse. Last time I 3 4 saw you was in the beautiful confines of Missoula, 4 case of plaintiffs and defendants any more, so I 5 5 Montana. shouldn't refer to defendants. He's grinning A In the beautiful courthouse, right. because --6 6 Q In the beautiful courthouse; that's right. 7 7 A Oh. So I'm going to be asking you some questions 8 Q -- he jumped at the opportunity to correct 8 9 here this morning that are focused on the somewhat 9 me, which I appreciate, of course. different context of this case. 10 10 So to be clear --11 11 And let me just ask preliminary: I take it MR. LEWIS: We thought you guys -- we from your testimony that you've had occasion to 12 understand you guys are in a lockstep on all these 12 13 review the deposition that was taken of Dr. Frank a 13 14 few days ago; is that correct? 14 MR. BERNICK: Well, you'd be surprised. 15 A Yes. 15 The most miserable, knock-down, drag-out fights you can possibly imagine. I go home and talk to my wife Q Is there any other testimony that you've 16 reviewed in connection with your work in this case? about how difficult it is for us to get along. 17 17 18 A Testimony or reports or both? 18 Q (By Mr. Bernick) No, seriously, 19 Q Just testimony. 19 Mr. Heberling thought it would be a good idea if you reviewed the deposition testimony offered by the 20 A Oh, I reviewed Dr. Welch's and Dr. Parker's. 20 experts who are appearing for the plan proponents; is 21 21 Q Okav. A And Dr. Moolgavkar's. I don't know how you 22 that right? 22 23 pronounce that. 23 A Yeah, he did and he provided me copies of 24 Q Moolgavkar. 24 them. 25 25 A Oh, Moolgavkar, okay. Q Okay. So -- but -- so did he make the Page 109 Page 107 selection of which transcripts you should read? 1 Remind me who else you've done recently. 1 Q Oh, I don't know. I've not really kept 2 A No, I think he just -- I think he's always 2 3 careful --given me everybody's transcripts for the most part, not all of them maybe, but anything that's happened 4 A That may be all. I'm not sure. 4 5 Q Did you review any of the testimony -in the last month or so, I think I've got copies of. 5 Q Okay. 6 A Orrig\*, yeah, I did review that. 6 Q You did review Orrig? 7 A He keeps me pretty well informed. 7 8 Q Whose idea was it for you to review the 8 A Yeah. Some of those, more detailed than 9 others admittedly. 9 transcript of Dr. Frank's deposition? Q Did you review any of the testimony that was 10 A That was mine actually. 10 Q Okay. And why did you decide to read 11 offered at the trial, at the criminal trial? 11 12 Dr. Frank's deposition? 12 A Only my own. A I know Dr. Frank pretty well, okay, and 13 Q Okay. Didn't review the testimony of 13 14 Dr. Lockey\* or -basically I wanted to see what he had to say. I A No. don't think he said anything that I particularly 15 15 Q -- Dr. Lemon\*? disagreed with or modified anything I was going to 16 say, but I -- I didn't know for sure that -- what he 17 A No. 17 thought about some things and I wanted to be sure 18 Q Whose idea was it to review the testimony --18 that I knew. 19 the deposition testimony of the defense experts that 19 you mentioned? 20 Q So you read it and read it carefully? 20 A I don't know if I read it carefully. I spent A Oh --21 21 22 MR. FINCH: Object to form. 22 twenty hours Saturday and Sunday reading depositions

28 (Pages 106 to 109)

and reports, so I don't know how careful that is.

There's an awful lot of pages there.

Q Well --

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it was a good idea if I did.

Q (By Mr. Bernick) Huh?

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A -- I think Jon Heberling asked me and thought

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Page 110

- 1 A I speed-read which may be part of it. That's how I get through a lot of this stuff sometimes. 2
- Q Okay. But did you make sure to read his 3 4 deposition?
  - A Yeah, I did read it, I think, as carefully as I read any deposition which, I mean, I get bored to tears after a little while.
  - Q The twenty hours that you spent as basically -- this is Monday (sic), so over the last two days, you spent roughly ten hours a day doing some reading?
  - A Yeah, I did a crash course basically to make sure that I was informed of all the issues that were coming up here and to make sure that I was informed about all the -- you know, my own report and all and that I didn't -- didn't miss anything or didn't forget anything. I mean, there's been an awful lot of water under the bridge here and --
- 19 Q Right.

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A -- a lot of things that have happened. This mortality report has been ongoing right up until last week. I mean, I've been looking at that and making sure I, you know, understood some of the numbers that came out of it which were sometimes difficult to comprehend in the absentia of the whole thing.

1 caution him when he strays from --

> 2 THE WITNESS: Well, that was a little 3

bit of a stray; you're right.

MR. BERNICK: Well, we were interested in the golf tournament.

Page 112

MR. FINCH: Or the fees --

MR. LEWIS: You can talk that over with

8 the doctor at the next break, Counsel. 9 MR. BERNICK: Okay. That's fine.

10 You're thinking that I'll -- that I won't be finished by the next break. Who knows? Maybe I'll be all 11 12 done.

Q (By Mr. Bernick) So, Dr. Whitehouse, how did you -- did you make a special request of Mr. Heberling to get the Frank transcript?

A I don't actually recall.

Q Okay. As a result of reading any of the depositions, did you do any further work in connection with the case?

A No, I don't think so, but I did -- as part of all the stuff that I was reading was making sure I went over all the data sheets on various things that I've done over the last year or so to be sure that I had all the numbers -- the important numbers in my head.

Page 111

Q Okay. Before this last week ended -- let's 1 2 just strike that. 3

The crash courses, you call it, and I'm not -- there's no particular magic to that term, but was that in anticipation of your being deposed today?

A Yeah.

Q Okay. That's fair and we appreciate your undertaking that effort.

Prior to this last weekend, had you read Dr. Frank's deposition?

A Prior to this last weekend?

12 Q Yes.

13 A I'm not sure. I only got it, I think, about Tuesday or Wednesday and then I had a number of other 14 15 things that were going on, and so I don't -- I really

could not. I would have done it sooner if I could 16 17 have.

18

Q Okay.

19 A But my wife was involved in a charity golf 20 tournament and, of course, she enlisted me doing all 21 the work.

22 MR. LEWIS: Doctor, I should remind you 23 just to answer the question that's been asked. Okay? 24

THE WITNESS: Okay.

25 MR. BERNICK: And we'll be sure to

Page 113 Q So basically over this last weekend, you sat 1 2 down to do the final prep for your dep and you had a whole collection of materials that included expert reports, depositions, and other information that you 4 5 wanted to make sure that you reviewed before you were deposed, fair? 6

A Fair enough.

Q Okay. I want to first ask you about your experience and seeing patients who had asbestos-related illness outside of Libby, that is, people whose exposure wasn't related to Libby. Okay?

How many cases -- how many people have you seen where you diagnosed asbestos-related illness from exposures outside of Libby?

15 A I don't know the answer to that exactly. I have estimated I probably have seen over the years as 16 17 many as 500. 18

Q 500 people that you diagnosed or 500 people that you saw in connection with the possibility that they had asbestos-related illness?

A Well, that's a good question because -- and I don't know that I can answer that question. I mean, it probably -- it may be half and half. There were a lot of them that were sent to me for confirmation of a diagnosis by Washington Labor and Industry.

29 (Pages 110 to 113)

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Q Okay. Is it true that with respect to your experience in seeing people with asbestos-related illness not related to Libby that you have published no papers?

A No, I have published no papers.

- Q Is it also true that with respect to those people you have not provided or you're not aware of anybody who's provided medical files relating to those people to anybody involved in this bankruptcy case?
- A No. 11

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- Q Is it true? Is what I said true?
- 13 A That's correct. That's correct, yes.
  - Q Is it true that in connection with your work on this case and the reports that you've done and the testimony that you've offered that you've provided -presented no data relating to patients that you've seen with asbestos-related illness unrelated to Libby?
    - A That's correct.
  - Q Okay. And I think you said in your own words this morning that pretty much you've studied strictly asbestos disease in Libby; is that correct?
  - A Not entirely. I read pieces of literature over the years, but the -- most of the work that I

Page 114 Page 116

- 1 A Well, it's treated as such in the literature.
- There's obviously confusion in that literature though in that there's data or reports concerning confluent 3
- 4 pleural plaques and their effect on lung function
- 5 which makes you wonder whether -- about that -- where
- 6 does confluent pleural plaques leave off and diffuse
- pleural thickening begins. It sort of sounds like 7
- 8 the same thing, but it is treated pretty much as a
- 9 separate disease in the literature. 10
  - Q I asked -- I just asked Dr. Frank, I said, is it true that the scientific literature defined a diagnostic entity called diffuse pleural thickening at least as of the 1970s and without relationship to Libby, Montana, and his answer was yes.
    - A I would concur with that.
  - Q Okay. And, in fact, we can go throughout the literature during this whole period of time and whether or not diffuse pleural thickening is defined to include what you called confluent plaques or not, the literature has regarded diffuse pleural thickening as a distinct diagnostic entity, fair?
    - A That's fair.
  - Q Okay. Is it also true that diffuse pleural thickening has been studied scientifically over those years at least since the 1970s?

Page 115

- did concerning those people with chrysotile exposure was pretty well before the Libby thing all broke, and so there wasn't any driving force for me to maintain data or anything like that.
- Q Okay. But let me -- that's fair and let me just ask you this question: Is it accurate that you've not done any scientific analysis of diffuse pleural thickening in any patient population outside of Libby?
  - A That's true.
- Q Let's talk a little bit about diffuse pleural thickening in the literature which, of course, is going to relate to folks outside of Libby, right?
  - A Most of it does, yes.
- Q Well, there's not any -- there's no published literature about diffuse pleural thickening in Libby specifically, correct?
  - A That's correct.
- Q So if we want to talk about diffuse pleural thickening in the published literature, we're talking about that disease as it's been studied and published for people outside of Libby, fair?
- 23 A Yes.
- 24 Q Okay. Would you agree that diffuse pleural 25 thickening is a distinct diagnostic entity?

A Yes. 1

- 2 Q Is it true that there are papers that have been published and presented that specifically focus on the pathology or pathological presentation of 4 5 diffuse pleural thickening?
  - MR. LEWIS: Objection. That's a compound question.
  - Q (By Mr. Bernick) Go ahead and answer. MR. LEWIS: Which is it? Which question do you want him to answer, Counsel?

MR. BERNICK: I don't think it's 11 12 compound.

- 13
- Q (By Mr. Bernick) Do you understand the 14 question? 15
  - A No. Why don't you repeat it, please?
  - Q Is it true that there are papers that have been published and presented focused specifically on the pathology or pathological presentation of diffuse pleural thickening?
- 20 A I'm sure there have been.
- 21 Q Is it also true that there are papers that 22 have specifically sought to measure the effect of 23 diffuse pleural thickening on lung function?
  - A Yes.
- 25 Q Okay. Now, I first want to talk about

30 (Pages 114 to 117)

Page 117

Page 118 Page 120 Dr. Frank's background and then I want to talk about 1 those reports? your background. Let's begin with Dr. Frank. 2 2 A Well, I assume probably -- well --Is it true that Dr. Frank has published no 3 3 Q You don't have to assume. You just --4 papers regarding diffuse pleural thickening? 4 A I can't --5 5 A I would have to take your word for that. Q As counsel will tell you, if you know, say. Q Are you aware of any? If you don't know, say you don't know. 6 6 7 A I'm not aware of any. 7 MR. LEWIS: Exactly correct. That's Q Are you aware of Dr. Frank ever presenting what I'd like you to do. If you know, answer the 8 8 9 any papers regarding diffuse pleural thickening? 9 question truthfully. If you don't know, say you 10 A I have no idea. 10 don't know. Q Are you aware of whether Dr. Frank has ever A I don't really know. 11 11 even studied the scientific literature regarding the 12 Q (By Mr. Bernick) Okay. Well, did you review 12 13 effect of diffuse pleural thickening on lung 13 those reports before they were issued? 14 function? 14 A Yes. 15 MR. LEWIS: Objection. Argumentative. 15 Q Did you write those reports? MR. BERNICK: Well, all 16 A Yes. 16 cross-examination is argumentative. 17 17 Q You wrote them word by word? 18 MR. LEWIS: No, but that one --18 A Not word for word. The way I do the reports 19 MR. BERNICK: You think that one was a 19 is that I write down all the various things, go over 20 little bit over the line? I'll rephrase it. 20 the various things with the attorney or the 21 Q (By Mr. Bernick) Is it true that Dr. Frank 21 secretaries and their secretaries type it up for me has not himself studied the scientific literature 22 because I don't have a typist available to me. 22 23 regarding the impact of diffuse pleural thickening on 23 Q Okay. So you write them out in hand? 24 lung function? 24 A I do some in hand and some of them I do 25 A I have no idea what he's studied. 25 verbally and then I check a draft and then make a lot Page 119 Page 121 1 Q Well, we asked him those questions. Did you of corrections to that and then send it back and get 2 see in his deposition I asked him those questions? Q But the content of the reports that had both 3 A You know, I did miss that. Off the periphery 3 for a minute, I -- I didn't pay that much attention 4 4 your name and Dr. Frank's name, the content of the 5 5 reports is all yours? to --Q Well, I will tell you that he testified in 6 A Mostly mine. 6 Q Well --7 his deposition that he had not done a review of the 7 literature on the impairment associated with diffuse 8 A He added some things to it. I'm not quite 9 pleural thickening. 9 sure what all was added in retrospect, but I know A Okay. 10 10 that it was run by him and then he made changes in 11 Q And my question -- and was not able to answer 11 it. my questions on that, so I then get to this question: 12 12 Q Okay. But in terms of the original You -- in this case -- I should say -- in this case, 13 authorship, you are the original author of all 13 reports that bear your name? 14 we've received expert reports authored by you? 14 15 A Yes. 15 A Yeah, basically. Q Okay. Whose idea was it to have both 16 Q And we've also received expert reports that 16 purport to be expert reports authored jointly by you Dr. Frank and you be -- have the same report? 17 17 and Dr. Frank and have both your names on them? 18 A I don't know. 18 19 Q Well --19 A Yes. 20 Q Do you know what I'm talking about? 20 A I don't know whether it was his idea or 21 whether it was the attorney's. It wasn't mine. 21 A I do. 22 Q Who actually wrote Dr. Frank's name on those 22 Q It wasn't yours? 23 reports? 23 A No. A Who actually wrote his name? 24 24 Q Well, but if it wasn't your idea, why was it 25 Q Yeah. Who decided to include his name on 25 done?

31 (Pages 118 to 121)

Page 122 Page 124 A Well, there's no reason why we couldn't not 1 1 associated with pleural disease that were mentioned 2 do a joint report. We've discussed all kinds of in the ATS 2004 paper that you hadn't even read, 3 things --3 right? 4 Q Well, that report --4 A That I -- I didn't know whether I read them. 5 5 A -- Dr. Frank and I have. I didn't -- I didn't look exactly at the sites. Q That report purports to reflect not only your There were three of them there at that point and I 6 6 opinions, but Dr. Frank's opinions, right? 7 don't know whether I read them or not. I don't think 7 A That's correct. 8 I did, but I don't know for sure. 8 9 9 Q And we learned from Dr. Frank that he didn't Q Well, but you come here to offer expert 10 opinions regarding diffuse pleural thickening and I 10 know of some of the literature and some of the know that you -- I know the basis of your expert opinions that were in the report, so whose idea was 11 11 it that the report would be for both him and you? 12 opinions insofar as Libby is concerned or I think I 12 13 MR. LEWIS: Objection. That question 13 do. We're going to get to that in a minute, but what 14 has been asked and answered a couple of times now. 14 I'm really exploring is the degree to which you can 15 Q (By Mr. Bernick) Well, let me just ask --15 hold yourself out as being an expert in what the I'll withdraw it. scientific literature says about diffuse pleural 16 16 Didn't -- wasn't -- had you ever before 17 thickening outside of Libby. 17 18 issued an expert report in connectin with litigation 18 MR. LEWIS: Objection. That's a speech 19 which was a joint report of yourself and somebody 19 of counsel. It's not a question. MR. BERNICK: Then wait for the 20 20 21 A No. 21 question. 22 MR. LEWIS: Well --22 Q Well, didn't it strike you a little bit odd 23 that that was happening here? 23 MR. BERNICK: I'll ask a question. 24 A No, not particularly because, you know, I met 24 MR. LEWIS: It's completely loaded up. with Dr. Frank a number of times in Libby and we 25 It's an improper question, Counsel. You're very 25 Page 123 Page 125 experienced. You know it was improper. discussed all kinds of things relative to Libby 1 1 2 cases, and so having a joint report -- it didn't seem MR. BERNICK: No, I think it's very 2 3 that out of line to me, no. 3 proper because it tells the witness very candidly Q And you just don't know whether it was his exactly where I'm going. 4 4 5 idea or the attorney's idea? 5 MR. LEWIS: No, it's loaded up. It's 6 A I don't. very argumentative. 6 Q (By Mr. Bernick) Here's my question to you, 7 Q Okay. Let's turn to your own background. 7 Dr. Whitehouse, in order to -- so as to not prolong 8 It's true, is it not, that you have not 8 9 published any papers at all on diffuse pleural 9 the agony: Have you done a comprehensive review of the scientific literature regarding the impact of thickening? 10 10 diffuse pleural thickening on lung function? 11 A That's correct. 11 Q Is it true that you have presented no papers A Define comprehensive. 12 12 on diffuse pleural thickening? 13 Q Well, it's not a huge piece of -- it's not a 13 14 14

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Q Is it true that you've not made a systematic study of the literature, the scientific literature on diffuse pleural thickening?

A I have read a lot of literature concerning diffuse pleural thickening.

Q I understand that.

A Whether that's systematic or not, I don't 21 know that I could answer that. 22

23 Q Well, but that's -- I mean, you already told Mr. Finch as an example that there were papers that 24 25 dealt with the progressive loss of lung function

huge body of literature, is it? A Oh, there's a lot of literature. I mean, there's literature not only in the U.S., but in Australia, South Africa, in Great Britain, and I've read literature from all those areas. Now, I don't know what the definition of comprehensive is. Q Well, have you done a system -- have you done a -- have you done a literature search, a scientific articles search to gather those studies that focus specifically on diffuse pleural thickening and its impact on lung function? Have you done that?

A I haven't done it systematically.

32 (Pages 122 to 125)

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In re: W.R. Grace & Co., Debtor Alan C. Whitehouse, M.D.

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Q If I were to ask you about different results and different studies, that is, when does diffuse pleural thickening lead to a measurable loss of lung function or not, would you be able to tell me the different studies and their different results on that very specific issue?

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A You mean you want me to actually quote an article and what the article says?

Q I want you to be able to talk with me about it in the deposition because I really want to know if you hold yourself out as an expert in the differing results that have been seen when data has been gathered on the impact of diffuse pleural thickening on lung function.

> MR. LEWIS: You finished? MR. BERNICK: Yeah.

MR. LEWIS: Objection. That's not a question. That's a statement of counsel. I move that it be strickened.

Q (By Mr. Bernick) Can you hold yourself out as an expert in the differing results that have been recorded in the scientific literature when scientists have asked what is the impact of diffuse pleural thickening on lung function?

A Well, to begin with, I don't use the term

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- 1 Q But a lot of other people do, people in your 2 field.
  - A Well, I don't.
  - Q Well, I'm just asking you: Do you consider yourself to be a person who can speak authoritatively to what all the literature says outside of Libby about the impact of diffuse pleural thickening on specific lung function results?

A You used the term all the literature, and, no, I have not read all the literature, every piece of the literature. I've read a substantial portion of the literature. I don't even know what the percentage is.

- Q So you don't know what you don't know?
- A Yeah, I think I know what I don't know.
- Q Okav.

A What I don't know is -- also gets quoted in a lot of these articles you read. What I haven't -- I shouldn't say don't know. What I haven't read necessarily is also summarized in a lot of these articles.

Q Okay. So if you give answers to my questions today about when and under what conditions does diffuse pleural thickening actually cause a substantial reduction in lung function, you and I can

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expert related to myself particularly. I basically am a longstanding practitioner with very extensive experience in lung disease and very extensive experience in Libby disease and I have read a lot of literature concerning diffuse pleural thickening that I have utilized in formulating my opinions. Now, I don't guess that that would be considered systematic, but that's the way it is.

Q Fair enough. And I've always recognized that you are candid in responding to questions and get to the point. That is my point. We're going to get to the Libby experience in a minute, but I'm talking about your -- I'm talking about your expertise in what's been reported outside of Libby.

Do you consider yourself to be an expert in the science, the scientific results of what's been reported outside of Libby when it comes to the impact of diffuse pleural thickening on specific lung function tests?

- A I think I'm knowledgeable about what's in the literature relative to that.
- Q But do you consider yourself to be an expert in what's in the literature with respect to that?
- A I told you before, I don't use the term expert --

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have a dialog on the actual data that's in the literature and you'll be able to respond? You're being held out as an expert in this case. You'll be able to respond to that as an expert; is that fair?

A I can respond very accurately to what happens in people in Libby, what happens to their pulmonary function relative to diffuse pleural thickening. I'm not going to make any attempt to summarize what happens in the chrysotile world in that regard.

Q Can you make any attempt to summarize what happens in the non-Libby -- you pick out chrysotile. I'm not just focused on chrysotile. I'm --

> MR. LEWIS: Counsel -- Counsel --(Simultaneous talking.)

MR. LEWIS: I've got the floor now.

Don't argue with this witness. You'll have great latitude. I understand this is cross-examination, but just answer the -- ask questions, let the witness answer. Don't make speeches, please.

Q (By Mr. Bernick) Was your last answer confined to chrysotile as opposed to amphibole?

A Basically, I have reviewed a great deal of literature relative to amphiboles and diffuse pleural thickening, particularly the Australian literature which has a lot of information in it. I don't know

33 (Pages 126 to 129)

Page 130 Page 132 how much altogether there is in the chrysotile 1 And the other layer is called the visceral 2 literature except that it's -- in many respects, it's pleura, right? been neglected because of the fact there's been so A That's correct. 3 3 4 much emphasis on interstitial lung disease and 4 Q Okay. And when you refer to confluent 5 5 chrysotile over the years, so that's where -- that's plagues, that's a fibrotic process that affects and basically where I get my information from. is evident in the parietal pleura, correct? 6 6 7 A Well, that's where it's considered that 7 Q Okay. Let's pursue this a little bit and see plaques begin and where -- where the majority of 8 where it goes. 8 9 MR. BERNICK: And I'm sorry. That was 9 plagues are. It's not totally exclusive, but I think a declaratory statement by me. 10 that's probably a reasonable statement and most of 10 MR. LEWIS: Yes, but it's preparatory the plagues we see are initially on the parietal 11 11 to your next line of questioning. 12 pleura. 12 MR. BERNICK: So that's okay? 13 13 Q And the condition known is confluent plaques. 14 MR. LEWIS: I have no problem with it. 14 It's a condition, a fibrotic condition, involving the I'm not being a jerk here. 15 parietal pleura, correct? 15 16 A That's correct. 16 MR. BERNICK: No, I know. MR. LEWIS: I'm just --17 Q And the visceral pleura also can 17 18 MR. BERNICK: I don't think you are. I 18 experience -- strike that. 19 think you're being fine. I disagree with what you're 19 If we take a look at definitions of diffuse 20 pleural thickening, sometimes there have been 20 doing, but --21 21 definitions that diffuse pleural thickening didn't MR. LEWIS: I understand that. 22 include the parietal pleura, correct? 22 MR. BERNICK: -- you look like a nice 23 guy. 23 A Yes. 24 Q (By Mr. Bernick) So the literature -- let's 24 Q Now, we've talked about the visceral pleura. 25 talk a little bit about the literature. All my 25 The visceral pleura can also be involved in -- it can Page 131 Page 133 questions now are going to be about the literature have thickening as a result of asbestos exposure, 1 1 2 until we get to Libby and I'll let you know. Okay? 2 correct? 3 A Mm-hm. (Answers affirmatively.) 3 A Yes, very much so. 4 Q And there's a fibrotic process that can lead 4 Q Is it true that the literature, the 5 5 to a condition called blunting of the costophrenic scientific literature reflects that there are different types of diffuse pleural thickening? angle, correct? 6 7 7 A I think you need to define what you're saying A Yes. 8 by different types of diffuse pleural thickening. 8 Q And that's a condition that affects the 9 Q Okay. Anatomically, there are two different 9 visceral pleura, correct? layers of the pleural, correct? 10 A Well, I think it -- no, not entirely. It 10 11 A Oh, that's what you're referring to? 11 involves everything --Q Well, if laypeople -- so I don't get into Q Well --12 12 trouble with the claimants' lawyer here, let me just 13 A -- if you look at --13 try to get to the questions. 14 Q -- the condition of blunting of the 14 The literature says -- or it's true costophrenic angle, to the extent that it affects, it 15 15 is a fibrosis of the pleura, is a fibrosis of the anatomically that there are two different layers of 16 16 the pleural, correct? 17 visceral pleura, correct? 17 18 A That's correct. Well, that -- you didn't say 18 A Not entirely. It involves both. If you look at a blunted angle, there's no way to say that it 19 19 that. Q Okay. And one layer is called the parietal involves only one portion of the pleura than the 20 20 other. It's not possible to say that. pleural, correct? 21 21 22 A Yeah, you don't need to tell me about the 22 Q It arises as a result of fibrosis in the 23 23 anatomy of the chest. I'm pretty good at -visceral pleura, correct?

34 (Pages 130 to 133)

A I don't think that's necessarily true. If

you look at -- it's likely that it starts that way,

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straight.

Q Well, I just want to make sure that we get it

Page 134 Page 136 but it's not necessarily true because, you know, most 1 word start. 2 of that arises from the fact that people -- some of 2 Let's start talking etiology. Okay? The the literature has said that, you know, 90 percent of etiology of blunting of the costophrenic angle, the 3 4 these are due to pleural effusions. Some of the etiology says it begins with a fibrotic process literature though disagrees with that. 5 involving the visceral pleura, correct? 5 Q Well, let's get specific. 6 MR. LEWIS: I think that -- Counsel, 6 You tell me the literature that says the 7 7 that question is compound. I don't think -fibrosis involving blunting the costophrenic angle 8 MR. BERNICK: Let's make --8 9 9 arises in the parietal as opposed to the visceral MR. LEWIS: You don't define etiology. pleura. Tell me one study. 10 10 Etiology could be something --A McCloud's study demonstrates the relationship MR. BERNICK: Just say --11 11 of fibrosis with strands across between the visceral 12 12 (Simultaneous talking.) 13 and parietal pleural. 13 MR. BERNICK: Just say objection to 14 Q That's not my --14 form, compound, or ambiguous. Okay? It's not that 15 MR. LEWIS: Let him finish his answer 15 complicated. You're just making -- you're making a and then you can inquire again, Counsel. record. 16 16 MR. LEWIS: In Montana, you can't just A And that's basically what we're talking about 17 17 when you're talking about blunting of the 18 18 say objection to form. 19 costophrenic angle. 19 MR. BERNICK: This is a federal -- this Q (By Mr. Bernick) My question, 20 20 is a federal proceeding that's taking place --Dr. Whitehouse, is simple. Tell me a single study 21 21 MR. LEWIS: In Montana -that says that the fibrotic process involved or 22 MR. BERNICK: It's taking place --22 associated with blunting of the costophrenic angle 23 23 MR. LEWIS: All right. 24 begins in the parietal pleura. 24 MR. BERNICK: -- pursuant to a process. 25 A I don't know that there's a study that says 25 The only reason we're in Montana is for Page 135 Page 137 Dr. Whitehouse's convenience. Okay? So the Montana it begins there. 2 2 Q That's what I asked you. rules --3 A Well, except that what I -- what I --3 MR. LEWIS: I stand corrected. 4 Q What's indicated --4 MR. BERNICK: -- don't govern this A -- indicated to you in the McCloud --5 5 process. 6 MR. LEWIS: Let him finish. 6 MR. LEWIS: I stand corrected, Counsel. 7 7 MR. BERNICK: No, no, that's not --All right? 8 8 Q (By Mr. Bernick) Just focus on the question MR. BERNICK: So I'll do my best to ask 9 and answer the question. 9 clean, clear questions. 10 10 A That's what I was doing. MR. LEWIS: And I'll do my best to Q Okay. I asked you a question. Let's be very protect the record as well, but I'm not trying to 11 11 clear. Is there a single study that says that the interfere with your examination. 12 12 fibrosis that's consequent on blunting of the 13 Q (By Mr. Bernick) Now that we've had this 13 14 costophrenic angle or associated with it starts in 14 meaningful dialog, Dr. Whitehouse, the guestion to 15 the parietal pleura? you is: Isn't it a fact that where you have diffuse 15 A McCloud's study demonstrates that stranding pleural thickening arising from or associated with 16 16 blunting of the costophrenic angle, it originates in occurs and there occurs an inflammatory response in 17 17 the parietal pleura associated with the visceral the visceral pleura? 18 18 19 A I don't think that's necessarily known. 19 pleura. Q Well, but you tell me where's the study that 20 Q Didn't --20 says otherwise. Where's the study that says -- you 21 A There's no difference between the angle and 21 22 the rest of the pleura. It's all part of the 22 tell me anybody who said that it originates someplace relationship between the visceral and the parietal 23 23 else. pleura. 24 24 A Well, to begin with, there's a fair amount of

35 (Pages 134 to 137)

discussion and lot of argument in the literature and

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Q That's completely nonresponsive. I used the

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there was prior to the 2000 ILO that blunting was, 2 first off, not necessarily had to be present for there to be diffuse pleural thickening. 3

- Q You're answering an entirely different question.
  - A No, I'm not.

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- Q I asked a very specific question. The origination of a fibrotic process that is associated with blunting of the costophrenic angle, tell me a single study saying that it originates anywhere other than the visceral pleura. I just want the study that says that.
- A I told you once before, the McCloud study demonstrated fibrotic process, pleural in the parietal pleural. That's what we're talking about in blunting. I'm sorry, whether you like it or not.
- Q No, you talk about the -- you talk about the fact that there's fibrotic process that runs between the two layers and that's not my question.
- MR. LEWIS: My problem here, Counsel, is you're arguing with the witness and that is entirely improper. Ask him a question, he answers it, when he's finished, then you get to inquire again. You constantly cut him off and that's improper.

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- had a fair question there and then you had to comment on it and you had to give your opinion as to it.
- That's improper. Please ask the witness a question
- and don't make editorial comments about your own 5 questions.
  - MR. BERNICK: Well, don't make editorial comments about your objections. We can go through this process and pretty soon we'll just break off and call the judge.
- 10 MR. LEWIS: That's fine. I'm willing 11 to call in the judge right now --
- 12 MR. BERNICK: This is really --
- 13 MR. LEWIS: -- on your questioning this 14

witness.

- MR. BERNICK: -- really an impediment to the process here that we haven't experienced before in the case.
- Q (By Mr. Bernick) I'm just trying to find out, Dr. Whitehouse, whether there's a difference between diffuse pleural thickening arising from confluent plaques and diffuse pleural thickening associated with blunting of the costophrenic angle. Tell me whether there's a difference or not.
- A There's a difference between those two, clearly.

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- Q (By Mr. Bernick) Let me ask you this guestion, Dr. Whitehouse: Would you agree with me that the diffuse pleural thickening that's associated with confluent plagues is different in origin and appearance and in the origin and presentation from the diffuse pleural thickening that's associated with the costophrenic angle?
- A You've made the assumption there that diffuse pleural thickening has to be associated with blunting of the costophrenic angle.
  - Q I didn't say that.
- A Well --12 13
  - Q Just listen to my question.
- 14 A -- your question assumes --
- 15 Q No.
- 16 A It does.
  - Q It's just a simple question.

Would you agree with me that the diffuse pleural thickening that is presented in confluent plaques is different in type from the diffuse pleural thickening that is associated with blunting of the costophrenic angle? There are two different types of diffuse pleural thickening.

- A I don't --
- MR. LEWIS: Objection. Counsel, you

Q Okay. And that clear difference has been recognized in the scientific literature, correct?

A The difference that's been recognized that you're reporting to is you're making the assumption that diffuse pleural thickening is present with blunting by the way the question is phrased and how it's in the context of it.

Why don't you ask me the question, is there any difference between pleural thickening that doesn't involve blunting and confluent pleural plaques, which would be the more logical question to ask me.

Q That's not the question that I asked you.

You just said that there was two -- a clear difference between diffuse pleural thickening presented through confluent plaques and diffuse pleural thickening that's associated with blunting of the costophrenic angle.

- 19 A I eliminated the blunting of the angle from 20 mv answer.
  - Q No, you said --
    - A I just did in that comment that I made.
- 23 Q Okay. Okay. So now there's not a clear
- 24 difference between diffuse pleural thickening
  - involving confluent plaques and diffuse pleural

36 (Pages 138 to 141)

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- thickening involving blunting of the costophrenic 1
- 2 angle? There's not a clear difference? Just tell me
- yes or no. There's no trick to it. I just want to 3 4 know whether they're different or not.
  - A I think there is a trick to it because --

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- 7 A -- the trick is getting me to agree to the fact that there is -- blunting has to be there with 8 the diffuse pleural thickening and --
- 10 Q No.
  - A -- I'm not willing to agree to that.
- Q No, no, no. We're going to go down that road 12 13
  - A Why don't we go down this road first and then come back to that?
    - Q No. no.

Let's just talk about the diffuse pleural thickening that is associated with blunting of the costophrenic angle. Okay? Got that in mind?

- A Okay.
- Q Is that different? Is there a clear difference between that diffuse pleural thickening and diffuse pleural thickening presented through confluent plaques?
  - A Yes, there obviously is. There's not a

thickening, isn't it the case that the literature

1 only reports impairment in the form of a restriction?

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- A Yes, I think that's true.
- 4 Q Okay. Now, when we deal with impairment associated with confluent plagues, has the literature analyzed whether there is impairment to lung function associated with confluent plaques?
  - A Well, the literature has already analyzed the fact that plaques themselves cause loss of lung function.
    - Q I didn't ask you that.
- 12 A Well, that's plaques and confluent plaques 13 could be expected --14
  - Q I'm specifically talking about confluent plaques. You're really going to have to listen to the question carefully because otherwise we'll just take a long time.

You talked about -- we talked about there being a difference between diffuse pleural thickening involving confluent plaques and diffuse pleural thickening where it is associated with blunting of the costophrenic angle.

Now, with that difference in mind, I'm asking you about impairment. That's very clearly where I'm going. Okay? So I'm now going to ask you a

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problem with it in the confluence in the plaques.

- Q Okay. And is that clear difference recognized in the scientific literature?
- A I think it is.
- Q Okay. And now let's turn then to the question of impairment associated with diffuse pleural thickening. Okay? I asked Dr. Frank whether the impairment associated with diffuse pleural thickening was restrictive, obstructive, or both, and
- 9 he said that it was restrictive. Would you agree 10 11 with that?
- A I think predominantly so. 12
  - Q Are you aware of any literature reporting obstructive impairment consequent on diffuse pleural thickening?
  - A As I recall, it was alluded to in the Orrig article. They were mostly talking about interstitial disease.
    - Q Right.
  - A But that's the only context that I know about for sure.
- 22 Q Well, that's what I'm talking about. Set aside interstitial disease. And I know
- 23 that you have opinions on that. I'm not going to get 24 25 into that. When we just talk about diffuse pleural

question. 1

2 Is there literature that analyzes the impairment that is associated -- whether impairment is associated with confluent plaques, is there 4 5 literature that does that?

- A I don't know for certain. I know that there's literature associated with plaques. I assume there is with confluent plaques. I haven't seen it.
  - Q You have not seen literature --
- A I don't recall a specific article that relates only to confluent plaques.
- Q Well, that's interesting because I believe that you take issue with the idea that diffuse pleural thickening should be confined in definition to thickening that's associated with blunting of the costophrenic angle. That's something you take issue with, correct?
  - A Well --
- 19 Q You don't like to see the definition of
- 20 diffuse pleural thickening confined to the condition that arises in connection with blunting of the 21
- 22 costophrenic angle, correct?
- 23 A That's correct.
  - Q Well, but if that's true, why haven't you
- 25 looked to see -- looked to the literature

37 (Pages 142 to 145)

Page 146 Page 148 specifically dealing with confluent plaques to see 1 1 A What you're asking me is whether I've looked 2 whether it causes impairment or not? at the word confluent in it. MR. LEWIS: Objection. That assumes Q No, that's not what I'm asking. 3 3 4 facts not in evidence. 4 A Yes, you are. That's exactly what you're 5 5 asking me. And what I said before was that I know MR. BERNICK: No. that plaques cause loss of lung function and the 6 MR. LEWIS: That's not what he said. 6 7 7 literature is very clear on that, so there's every MR. BERNICK: I'll rephrase the reason to believe that confluent plaques are going to 8 question. 8 9 9 lose lung function probably to more extent that plain Q (By Mr. Bernick) Have you made a specific plagues, but I haven't read any literature about it. 10 review of the literature to see whether confluent 10 plaguing causes a loss of lung function? Have you Q That's my point is that whatever you might 11 11 made that inquiry? 12 expect or whatever might make sense, you haven't 12 13 A I'll repeat again. I've looked at the 13 actually looked to the scientific literature on 14 literature concerning plaques and you'll see the 14 confluent plaques to see whether there is, in fact, 15 notes in there and also in ATS 204 -- 2004, that 15 report or data showing loss of lung function, plagues cause loss of lung function. Schwartz has 16 correct? You haven't done that. 16 written about that, and whether those are confluent 17 A No, I have not. 17 18 or just plagues, I don't know because I don't think 18 Q Thank you. 19 there's very much literature about confluent plaques, 19 Now, the literature -- the literature that 20 at least I don't think I've run across it. 20 you say shows that plaques have been associated with 21 Q Well, can you say that the diffuse pleural 21 the loss of lung function, that literature, you thickening presented as confluent plagues actually 22 haven't reviewed that systematically either, have 22 23 has caused -- been shown to cause a loss of lung 23 you? 24 24 A No, I've read a lot of that. Systematically? 25 A I mean, how can you say otherwise when you 25 Where is a private practitioner going to Page 149 know plaques cause loss of lung function? What's the systematically make searches of everything in the 1 2 2 literature? That doesn't happen. You read difference between that and confluent plagues as far 3 as the loss? literature that's pertinent. You read literature Q Your lawyer is now going to tell you that that comes out. You look at it as it comes out. And 4 4 then you digest it and use it in your practice. 5 what you should do is answer the question, not ask 5 6 another one. 6 That's what I do. 7 MR. LEWIS: I'm not going to say 7 Q You haven't even looked at the literature another thing. I was just keeping you from 8 cited by the ATS 2004 paper itself, correct? A Why would I want to? Why is there a need to? 9 interrupting him because you want to interrupt this 9 10 10 witness every time he says something you don't like. Q I didn't ask you that. You have --11 MR. BERNICK: I like everything 11 A Well, no, that's a legitimate answer. What Dr. Whitehouse has to say. He knows that, and you'll is the need for me to do so? 12 12 learn that, you know, as we go through the day. 13 Q Can you actually cite me to any specific 13 14 Q (By Mr. Bernick) The guestion is pretty 14 study, any specific study showing that any form of simple. If -- confluent plaques is another way in plaquing actually causes a loss of lung function? 15 15 16 which you get pleural thickening, correct? 16 Can you give me one study? A That's correct. 17 A Schwartz's article. 17 18 Q Have you specifically looked into the 18 Q Schwartz? literature to see whether that type of diffuse 19 19 A Yes. pleural thickening has been shown to cause a loss of 20 20 Q Is that it? lung function? Have you done it? Yes or no. 21 21 A I know that one for certain right off the top 22 MR. LEWIS: Objection. He just 22 of my head. 23 answered the question, completely and thoroughly 23 Q And you're sure that that shows a loss of answered the question. It's asked and answered. 24 lung function associated with plaques? 24 25 Q (By Mr. Bernick) Go ahead and answer. 25 A I'm pretty certain about that. It also shows

38 (Pages 146 to 149)

Page 150 Page 152 it associated with diffuse pleural thickening. 1 with your statements and I'd really appreciate it if 2 There's multiple articles by Schwartz. you don't raise your voice and don't lean over the Q I'm just asking about plaques. table and be angry with me. 3 3 4 A I'm pretty sure that's where that originally 4 MR. LEWIS: Well --5 came from. 5 MR. BERNICK: I'm sorry. I'm sorry. Q From Schwartz? 6 6 Let me finish now. 7 A I think so. 7 MR. LEWIS: Go ahead. 8 8 Q Is there any other study that you can talk to MR. BERNICK: I think that my me about which shows that pleural plaques alone have 9 questioning is entirely legitimate cross-examination an affect on lung function? and I don't think it's up to you to decide whether 10 10 A Not that I can off the top of my head, no. it's legitimate or not legitimate cross-examination. 11 11 12 Q Now, let's change the question a little bit. 12 It's up to the judge to decide. And she'll have that 13 Let's talk about significant affect on lung function, 13 opportunity. 14 and let's even make it more. 14 And I've examined Dr. Whitehouse before and I 15 I want to know about any paper that shows 15 was never accused in the very vigorous that plagues have been associated with a reduction of cross-examination of not being fair with 16 16 lung function to the point that lung function is Dr. Whitehouse by a Montana federal judge in a 17 17 beyond the range of -- is below the range of normal. 18 18 proceeding that you're very well aware of. 19 Have you seen a single paper showing that any 19 And I'm not -- I don't think I'm treating 20 20 form of plaque -- plaquing is associated with the Dr. Whitehouse with disrespect. I don't think that's 21 loss of lung function so that it's below the range of 21 what the record will reflect. I'm very eager and 22 anxious to get answers to very precise questions. 22 normal? 23 A I can't quote one to you. 23 So just do me a courtesy. If you have an 24 Q Can you -- apart from quote, are you aware 24 objection, make an objection. If you believe the that there is a study, a single study -- if you'd deposition is abusive, you can always terminate it. 25 25 Page 151 Page 153 just focus on me for a moment, Dr. Whitehouse, it'll 1 I don't believe it is abusive at all. 2 2 Q (By Mr. Bernick) Dr. Whitehouse, I now want expedite matters. 3 MR. LEWIS: Well, what was that, to ask you, again, the same very specific question. 4 Are you aware of any study, that there is 4 Counsel? What was --5 5 even a study, showing that plaquing can cause a MR. BERNICK: Mr. -- Dr. Whitehouse was reduction of lung function so that it's below the reviewing papers and wasn't looking at me, so I 6 6 range of normal? 7 suggested that he --7 8 MR. LEWIS: Well, you're asking him 8 A Would you give me a moment to review this 9 about papers and --9 article? I'm not sure whether it's in here or not. 10 10 Q Okay. If you could just tell us what the MR. BERNICK: No. article is while you're --11 MR. LEWIS: -- I think he's entitled to 11 A It's the Schwartz article. It's one of his. 12 look at papers. 12 13 This is the '89 one. There's also one from 2000, 13 MR. BERNICK: No. 14 MR. LEWIS: He doesn't have to even 14 2001. This is the one that demonstrated that the FVC look at you when he's answering the question. You 15 one was -- that the FVC was decreased by plaques. 15 presume too much, Counsel. You need to be fair to 16 (Peruses document.) 16 the witness. Okay? You make speeches and you say 17 Unfortunately, he doesn't present this --17 this is 10 percent as predicted, but he reports that answer it yes or no. You're entitled to do some of 18 that, but this is getting over the top. You should in pleural fibrosis, the decrease in FVC associated 19 19 be respectful to the witness and not argue with him 20 with people with circumscribed plagues is 3.75 versus 20 4.09 which is basically .343 -- 340 cc's, which is 21 on every answer that he gives. 21 22 MR. BERNICK: Are you done with the 22 about pushing ten percent loss, and that with diffuse 23 pleural thickening, it's about a liter, which is 23 lecture? 24 MR. LEWIS: I'm done with my statement. 24 clearly below the normal range in his study.

39 (Pages 150 to 153)

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Q Right.

MR. BERNICK: Okay. Let's dispense

Page 154 Page 156 A So I don't know whether that's actually below 1 1 loss of -- strike that. 2 the range of normal or not, but it's got to be very 2 Blunting can be associated -- I don't like 3 3 close. that one either. 4 Q Well --4 If you take a look at the studies, there are 5 5 A He reported it as such. studies that focus specifically on the association of Q Okay. Are you sure that that's ten percent? blunting with loss of lung function, correct? 6 6 A Well, they're associated with diffuse plural 7 7 A Pretty close to it. Q Not pretty close. You're here as an expert. 8 thickening and you're using that as part of the 8 9 9 Do you know? definition. 10 A 4.09 and 3.16, okay, it's -- it's about eight 10 Q Yes. Well --A I'm saying that if you don't have --11 percent. 11 Q Eight percent? 12 Q I'll rephrase my question. 12 A Maybe nine percent. 13 13 A -- blunting, you don't have diffuse pleural 14 Q Does that reflect -- does that reflect that 14 thickening. 15 the resulting loss of lung function is below the 15 Q You're correct to correct me, so I'll range of normal? 16 rephrase the question. 16 A It all depends where the first one started. 17 There are studies that look to examine 17 18 Depends what 4.09 liters plus or minus .91, whether 18 whether the diffuse pleural thickening associated 19 that is actually, indeed, 100 percent or whether it's 19 with blunting of the costophrenic angle leads to or a population of which the -- everybody was 90 percent 20 is associated with a loss of lung function, correct? 20 of predicted. Depends on what the normal values he A Yes, there's more lung function in that 21 21 22 22 used. group, yes. 23 Q So that's my whole point. 23 Q Okay. And those studies do show that diffuse 24 Can you tell me as an expert today of a 24 pleural thickening associated with a loss of blunting single study which shows that plaquing alone results of the costophrenic angle can lead to a loss of lung 25 Page 157 in a loss of lung function below the range of normal? function that is both significant and severe, 1 1 2 2 A No, I probably can't, although I think that correct? 3 3 this demonstrates significant loss. A That's correct. Q But I didn't ask you about significant loss. Q And, in fact, produces a reduction of lung 4 4 5 I'm talking about severe loss. 5 function to below normal ranges, correct? 6 A Well --6 A That's correct. Q This talks all about severe --Q Would you, therefore, agree with me that the 7 7 diffuse pleural thickening associated with blunting 8 A No. 9 Q -- loss. 9 of the costophrenic angle has a clear track record of 10 being associated also with very severe impairment? 10 A Not with plaquing alone. Diffuse pleural 11 thickening, yes. 11 A Yes. Q Well, diffuse pleural -- I want to make sure Q And is it also true that it is for that 12 12 that we don't have a problem there either. 13 reason -- I'm not here to debate with you whether the 13 14 Can you tell me of a single study anywhere 14 definitions are good or bad, but would it be fair to which shows that confluent plaquing results in a 15 say that it's for that reason that some scientists 15 severe loss of lung function? have decided to define diffuse pleural thickening by 16 16 A No, and I don't think he discusses that in 17 including in the definition blunting of the 17 costophrenic angle? 18 this article either. 18 19 A I suspect that that may very well be the 19 Q Can you tell me a single study anywhere that shows confluent plaquing results in a loss of lung 20 reason why they decided to do so, but what I've been 20 function below the range of normal? saying and what's in the data that we produced is 21 21 22 A I'm not aware of any. 22 that we've got about half of these people that died Q Now, let's talk about blunting. 23 with diffuse pleural thickening and there was no 23 24 A Yes. 24 blunting, and by definition then, they don't have it,

40 (Pages 154 to 157)

so that's crazy if you have a definition that doesn't

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Q Blunting is associated with a substantial

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explain what they've got. 1

- Q Didn't I say that I'm not focused on whether the definition is right or wrong?
  - A I am.

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- Q Well, that's great, and so when you have your opportunity to testify, if you want to talk about the definitions, that's fine with me.
  - A I certainly will.
- Q I'm not going to ask you about the definition excepting and only in one respect. I think that you answered this question, but you then went on to make a long statement, so I want to make very sure that we're in agreement on this.

One of the reasons why some scientists have decided to define diffuse pleural thickening by including in the definition blunting of the costophrenic angle is that the literature has shown that where diffuse pleural thickening is associated with blunting, there's a very substantial risk of severe impairment, correct?

A That's correct.

MR. LEWIS: Objection. Argumentative.

Q (By Mr. Bernick) Now, the scientists that have decided to define diffuse pleural thickening in a way that includes a requirement to blunting, those

1 A That's true.

> 2 Q And with respect to the ILO, while you've been critical of the ILO, the ILO is an independent, 4 rigorous review process and it's very important in the medical community what the ILO has to say about this, correct?

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MR. LEWIS: Objection. Compound. Argumentative.

MR. BERNICK: I'll break it down.

- Q (By Mr. Bernick) The ILO is an independent -- it's an independent research and pronouncement process, correct?
- A The ILO is supposedly an epidemiological tool for the establishment of extent of disease in populations and cohorts. Okay? It's not used that way any more, unfortunately, even though it was designed that way.
- Q I'm very interested in that. That's not the answer to my question.
- I said independent. The ILO is regarded as being independent, correct?
  - A I guess so, yeah.
- Q Okay. And the ILO is regarded as being -- it involves participation of people who are high quality, recognized scientists, correct?

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scientists are actually in the mainstream of researchers in diffuse pleural thickening, correct?

- A I'm not sure I can answer that question.
- Q Are you aware -- well, certainly, the --Dr. Frank has told us that ATS 2004 itself can be reasonably interpreted to say that blunting is part of what diffuse pleural thickening is, that it's a requirement, correct?
- A Oh, it does say that, yes.
  - Q In the same --
- A But you're talking about experts, you know, in the scientific sense here. Are you talking about experts in the 2004 -- are you talking about the experts involved in this trial?
- Q Okay. I'm talking about the experts involved in the scientific community, whether or not they are part of this trial. I'm talking about people who are recognized as being authorities in the scientific community in this area.

The mainstream of those people say that diffuse pleural thickening requires there be blunting of the costophrenic angle, correct?

- A That's correct, that's what they say.
- 24 Q That's true of the ATS and that's true of the 25 ILO, correct?

A l'assume so.

Q You're not aware -- you're not here to say that in some fashion the ILO process or the people who are involved are biased, are you?

A There's a number of articles out that -- and I can't quote them to you right off, the authors, but there are a number of articles which can be provided to you that demonstrate there's an incredible variation between ILO readers that tends to make the ILO system very difficult to use.

Q I didn't ask you about any of that. I said biased. Are you saying that the --

- 13 A Well, is that a bias or what is it then? I 14 mean --
  - Q Those are B-readers, interreader variability among B-readers. Nothing to do with my guestion. I'm talking about the process whereby the ILO classification systems are developed and issued by way of pronouncement, that process.
- 20 A The way it was developed --
  - Q Yes.
  - A -- fine, I don't disagree with that.
- 23 Q Okay. Well, that's -- that's fine. That's
- 24 what I'm asking you about.
- You don't disagree with the way that the ILO 25

41 (Pages 158 to 161)

In re: W.R. Grace & Co., Debtor Alan C. Whitehouse, M.D. Page 162 Page 164 1 2000 classification was developed in terms of its 1 Q Okay. Fine. 2 independence or the quality of the scientists 2 Would you also recognize that they focused involved, do you? 3 3 specifically on diffuse pleural thickening as part of 4 MR. LEWIS: Objection. Asked and 4 their process in 2000? 5 A They -- they did. I guess you would be 5 answered. Q (By Mr. Bernick) Do you disagree -- do you reasonable to say that they did, whereas, prior to 6 6 7 that, they had not focused very much on it -believe that -- strike that. 7 Do you have any issue with the quality and 8 Q Okay. 8 9 independence of the science and the scientific 9 A -- but they did spend more time on it. process that led to the development of ILO 2000? 10 10 Q Okay. And would you also agree with me that if we look in the literature for -- you said that the MR. LEWIS: Objection. Asked and 11 11 12 mainstream definition now includes blunting of the answered. 12 13 A No, with the following exception, the ILO costophrenic angle. Are you aware of anybody who has 14 standards were pretty much developed around 14 written a peer-reviewed article anywhere in the 15 conventional asbestos disease and I'm trying to 15 scientific literature that says it is wrong to relate to you something that's different that relates require blunting of the costophrenic angle in the 16 16 to Libby asbestos. definition of diffuse pleural thickening? 17 17 Q (By Mr. Bernick) I'm not talking about that. 18 18 A I haven't seen that it says that in the 19 I understand that where --19 literature, no. 20 A Well --20 Q Now, let's talk a little bit about 21 Q Did I say -- did I say to you, 21 interstitial asbestos, although if people are getting 22 Dr. Whitehouse --22 a little hungry, we can --23 A These are --23 MR. BERNICK: Are the sandwiches 24 Q I --24 around? 25 25 MR. LONGOSZ: Should be over down the A These are also intermingled. It's very Page 163 Page 165 difficult to separate one from the other. I'm sorry. 1 hall. 1 2 2 MR. BERNICK: Let me know if you want 3 Did I say to you that we'll reach a point in 3 to -- are you a little bit peckish? the deposition where we'll talk about Libby? I said THE WITNESS: This is probably a good 4 4 5 that, right? 5 time. 6 A Yes, you did. 6 MR. BERNICK: What? 7 7 Q Okay. We're going to -- we're not there yet, THE WITNESS: Probably a good time for so I'm just asking you about the ILO scientific a break anyway and have lunch. It's 12:30. 9 process itself. 9 MR. BERNICK: Okay. 10 10 A The original process, I'm sure, was done THE VIDEOGRAPHER: We are going off the 11 appropriately and I'm sure it was done in 1980 11 record. The time is now 12:30 p.m. appropriately when they did it originally. (Lunch recess.) 12 12 13 Q Okay. 13 (Mr. Stansbury exits.) 14 A What I was referring to was not that then. 14 THE VIDEOGRAPHER: We are back on the Maybe it's a little of that. I don't know. But I'm record. The time now is 12:50 p.m. 15 15 16 referring to practical usage as it is currently used. 16 **EXAMINATION** (Continuing) Q I'm not -- I'm not even talking about that. 17 BY MR. BERNICK: 17 18 I'm just talking about the ILO 2000 classification 18 Q Dr. Whitehouse, I want to shift gears here document. 19 19 and ask you some questions about interstitial

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basics.

asbestosis and then we'll go back to pleural

thickening for the rest of the dep, but just some

Would you agree that the scientific

literature recognizes interstitial asbestosis as

being a distinct diagnostic entity?

A Okay.

Q Do you have any issue with the fact that it

was developed by independent scientists who were

A I don't have any reason to believe otherwise,

recognized as being authoritative in their field?

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no.

Page 166 Page 168 1 A Yes, the literature does, yeah. 1 to be severe, although there's people who disagree 2 Q Okay. And pathologically, interstitial about it and there's people that -- there's a lot of asbestosis involves a fibrotic process in the variation between observers in those numbers. 3 3 parenchyma of the lung, correct? 4 (Ms. Rickards returns from lunch 4 5 5 A Correct. recess.) Q (By Mr. Bernick) Okay. Now, you were asked Q And it can be progressive? 6 6 some questions about the trust distribution 7 A Yes. 7 procedures or TDPs in the plan of this case, and I 8 Q And it can result in substantial impairment, 8 9 9 want to show you what I think is your Exhibit-2. Do correct? you have it here someplace? 10 10 A Yes. MR. LEWIS: That's right over here. 11 Q Would you also agree with me that in the 11 literature, interstitial asbestos can range from mild 12 Q (By Mr. Bernick) We don't want you to walk 12 to very severe, both -- just leave it at that, from 13 13 off with these, Dr. Whitehouse. 14 mild to very severe? 14 MR. LEWIS: Are you accusing this A Yes. 15 15 witness --16 Q (By Mr. Bernick) We would be confused 16 Q And can do so both in the extent of the 17 fibrosis and in the extent of the impairment? 17 forever. 18 A Yes. 18 A -2, you said? 19 Q Would you agree with me that scientific 19 MR. LEWIS: Yeah, looks like this. convention in the area of asbestosis says that both 20 A That's the one I was looking for. 20 the degree of fibrosis and the degree of impairment 21 (Mr. Longosz returns from lunch 21 can be rated or measured? 22 22 recess.) 23 A Yes. 23 Q (By Mr. Bernick) If you take a look at 24 Q So that when it comes to the extent of 24 Page 26 of Exhibit-2, do you see severe asbestosis as one of the categories? It's category -- or level 25 fibrosis, B-readers, people who are certified to read 25 Page 167 Page 169 x-rays for fibrosis, will have the ability to rate 4-A. Do you see that? 1 2 2 the degree of fibrosis using the ILO system, right? A Yeah. 3 A Yes. 3 Q And you're aware, are you not, that the TDP -- this aspect of the TDP basically is a part of 4 Q And when it comes to impairment, scientific 4 5 convention measures the impairment associated with a process where people can either qualify for 5 asbestosis through basically lung function tests compensation based upon an expedited review or if 6 including forced vital capacity among others, they choose, look for compensation about it based 7 7 upon an individual review. Are you -- I know you're 8 correct? 9 A That's correct. not an expert in it, but are you generally familiar with the expedited review versus the individual 10 Q Okay. All that is very plain scientific 10 convention, correct? 11 11 review? A Yes. 12 12 A Yeah, I am, and I would -- another thing, I 13 did make an error concerning the ILO of 3/2. It's Q Now, let's talk a little bit about severe 13 14 asbestosis. 14 actually 2/1 --Scientifically, is there a bright line test 15 Q Okay. 15 for when asbestosis is severe? And by asbestosis, I A -- concerning severe asbestosis. 16 16 17 Q So basically as you understand the TDP when 17 mean interstitial asbestosis. it comes to these definitions of severe asbestosis at 18 A Oh, there's been attempts to quantitate it by 18 FVC, but they're not very accurate. level 4-A is an expedited or a set of benchmarks for 19 19 20 Q Okay. What about in terms of the degree of 20 an expedited review based upon a paper submission. fibrosis? Are there bright line medical tests for 21 Is that your general understanding? 21 when asbestosis is severe in terms of degree of 22 A Yes. 22 23 23 fibrosis? Q Okay. Now, I want to suggest to you and I A Well, I think most people think it's, you 24 want you to accept for purposes of the questions that 24 25 know, you get past ILO 3/3 or 3/2, then it's thought 25 I'm going to ask you that the TDP criteria for this

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expedited review are designed to pick out and qualify for compensation cases of severe asbestosis that can be established through objective criteria and are clear cases. That is, it's not looking for the borderline cases. It's looking for the clear cases. I want you to assume that for purposes of my

And in light of that, if we take a look at level IV-A, as you see it, does this use criteria for severity based both upon the presentation of the disease and upon the impairment? Is this a category that works with both the disease presentation as well as the impairment?

- A Probably as best as it can be, yeah.
- Q Okay. And that's really what I wanted to get to next is that you see that it uses -- the severe asbestosis TDP calls for an ILO of 2/1 or greater for asbestosis determined by pathological evidence.

Is it true that with that test the scientific literature says that that test will, in fact, succeed in picking out and qualifying patients that do, in fact, have very significant fibrosis?

A The only caveat I have is that -- yeah, if you sent it to Sam Hammer, you'd get a good answer. Okay? If you sent it to some other path labs that I

Kalispell.

The docs tend to either not have the equipment or don't know exactly how to do it, so the problem is that -- and I'm not arguing with those criteria, by the way. I want you to be aware of that, but the problem is when you're talking about pathologic specimens, I think you're going to get a lot of people that are going to -- they submit something like that, say, from a lung biopsy or something like that, the asbestos fibers will be missed and it won't be called asbestosis.

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Q Fair enough.

But where the pathology does find asbestosis --

A That's fine.

16 Q -- which is what the TDP requires, those will 17 be pretty clear cases of significant fibrosis, 18 correct?

A It could be misleading. You could -- you could be picking up a case where it's not significant or doesn't meet an ILO standard of 2/1. It meets -it's maybe 1/1 or something like that, but I would assume though that it wouldn't have gotten submitted unless the vital capacity was low or some other reason.

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know about, the chances are that you're not going to get the correct answer --

Q Okay.

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question.

A -- because of the sophistication of the equipment necessary to make a decent answer and generally TEM, and so, you know, electron microscopy.

Q But if the goal is to pick up clear cases for expedited treatment of people with significant fibrosis, doesn't science say that if you have pathological pathologists who says that it's asbestosis, that's going to be -- that's going to be a requirement that -- strike that. Strike all that. I want to rephrase this just to be simple.

We've got a test for expedited qualification of people who've got clear cases. Would you agree with me that the scientific literature says that a diagnosis of asbestosis by pathology is a pretty reliable way of determining, at least those people who have significant fibrosis?

A I'm not sure I'd agree with you and -- now, this is on personal experience. Okay? There's no question that the average pathologist will pick up the fibrosis and the interstitial disease. Okay?

But the proof of asbestos fibers in the specimen, at 24 25

least in Spokane, is very wanting and it is in

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Q Yeah. What I'm really getting at is -- and you say you don't take issue, but what I'm really getting at is, you know, maybe -- maybe I haven't been simple and clear enough putting it to you.

The criteria of 2/1 ILO or asbestosis by pathological evidence, science says that those are pretty good tests for picking up clear cases of significant fibrosis; would that be fair?

A Yeah, I don't have any issue with the fibrosis criteria here. I really don't.

Q Okay.

A And as I told you, I don't know enough about the dollar amounts that I'm going to make any comments about them.

Q I'm not asking you about that at all.

Likewise, the TDP for severe asbestosis also calls out a requirement for impaired lung function, correct?

A Yes.

20 Q And works with TLC and FVC in doing so, 21 right?

22 A Yeah, the one issue --

23 Q Let me just get to the question.

Okay. Go ahead. Sorry. Α

25 Q Would you agree with me that there too, the

44 (Pages 170 to 173)

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TDP has tests that science says should pick up people with clear cases? Let me be clear about that. Not suggesting that it will pick up all of them, but the people who qualify under the TDP based upon -- strike that.

Would it be fair to say that under the science today, those people who do have impairment meeting the tests of the TDP for severe asbestosis are likely to be people who do have significant impairment?

A That's true. And if I could say something relative to this?

Q Sure.

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A It's interesting that TLC is used rather than DLCO. DLCO -- TLC is probably less accurate than DLCO is as far as its consistency of the study. That's one problem that the DLCO is not in there.

The second problem with this is that the ratio is greater than 65 percent because it's well known that asbestosis can produce a significant obstructive defect.

Q You're answering a different question and I'm glad you did.

A Okay. But I -- you know, I said I didn't have much issue with it, but the more I -- I didn't Page 176

- A Well, true, except that -- let me give you an example of one that will not, and we run into this periodically. Somebody that has interstitial 4 fibrosis, that is, UIP, usual interstitial 5 pneumonitis, it's non-asbestos related and then we discover they don't have asbestosis because we can't 6 7 establish an exposure history, and so your point
- number four there about supporting medical 8 9 documentation is a very important factor in that, you 10 know. I mean, you have to have documentation of the 11 disease.
  - Q I think you're agreeing with me.

If we look at the TDP for severe asbestosis and we ask, do the tests that are set out in that TDP, are those tests tests that science says if they're met by claimants, those claimants are, in fact, likely to have severe asbestosis, is the answer to that question yes? If these tests --

A Well, yes it is. If you read the entire thing, yes, it is.

Q So if we read TDP for severe asbestosis in its entirety, that is a TDP which science says will pick up people who are pretty clear cases of severe asbestosis; is that fair?

A That's fair.

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have issue with that first part, but I do have issue with the second part.

Q Okay. You don't -- you didn't have issue with the first part, you're referring to the tests for fibrosis as set forth in level 4-A, correct?

A Right.

Q But I'm glad you made the statement that you did because I want to be clear on the focus of my questions, and this is important, Dr. Whitehouse.

I'm asking you really not whether you or somebody else could have included other criteria which would have had the effect of picking up more people. I'm not asking you that.

I'm asking you whether the criteria as set out, both for fibrosis and for impairment in level 4-A, are criteria which if they're met by a claimant, that claimant -- science says that claimant is, in fact, likely to have a pretty clear case of severe asbestosis. In other words, these criteria -- I'm sorry. I'll rephrase.

These criteria are criteria that science says will pick up clear cases. You may say they may not pick up all of them, but they'll -- the cases they pick up will be clear cases of severe asbestosis, fair?

Page 177

- 1 Q Okay. Now, it will also not pick up other 2 people who may have severe asbestosis. I take it is what you're saying? 4
  - A Yes, that's a problem.
- 5 Q Okay. Well, it may or may not be a problem depending upon what the judge in this case thinks, 6 but you're saying in one of your criticisms of these 7 TDPs is who they exclude, fair? 8
  - A Fair.
  - Q Okay. And this TDP for severe asbestosis will exclude people outside of Libby, nothing to do with Libby, will exclude people outside of Libby that may have severe asbestosis, fair?
    - A Yes.
  - Q And you're saying it will exclude -- in your own experience, it will exclude people within Libby who have severe asbestosis, correct?

A I think it is much more likely in Libby for them to be excluded because of the nature of the disease than it would be outside Libby.

Q Well, we're going to get to that in a minute, but both inside and outside of Libby, if these tests for severe asbestosis are met, science says those people will pretty clearly be people with severe 25 asbestosis, correct, in both places?

45 (Pages 174 to 177)

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Page 178

- 1 A I think reasonably, yes.
  - Q Okay. And by the same token, this test that is in the TDP for severe asbestosis will exclude people both inside and outside Libby that some might say based upon a different test, in fact, have severe asbestosis. We're in agreement about that, correct?
    - A Yes.

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- Q Okay. Now, the people outside of Libby who are excluded will include people who have low DLCO scores, right?
  - A Correct.
- Q Will exclude people who are not 2/1s, but 12 13 maybe, you know, 1/1s but has severe impairment. There will be borderline cases outside of Libby, 14 15 right?
- A Yes. 16
- 17 Q And with the borderline cases, are you 18 familiar that in the trust distribution process, 19 they'll have the opportunity for individual review?
  - A I understand that.
  - Q And you understand the same thing will be true with people of Libby?
  - A Yes, I think one of the things that really disturbs me about that is it's not a physician that's reviewing it. It's not a pulmonologist.

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Page 181

- 1 would you agree with me that when it comes to tests for the presentation of the disease that science says
- that where people meet that test, it's pretty clear 4
  - that they do have diffuse pleural thickening?
  - A How they answer this question is --
    - Q It's where the test is met.
- 7 A Well, I think you may be right about that, where the test is met. 8
  - Q That's what I'm asking.
- 10 A But the test itself has some severe limitations and problems with it. 11
- 12 Q I'm not really going to debate that with you 13 in the questions I'm asking you right now. 14
  - A Okay.
- 15 Q I'm asking you the same kinds of questions 16 that I asked you about when it comes to severe asbestosis, that is, the tests that are imposed by 17 18 the TDP for severe disabling pleural disease, for the 19 diagnosis of it, those are tests that science says if they're satisfied, the claimant will be a pretty 20 clear case of having severe disabling pleural 21 disease, correct? 22
  - A Yes.

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24 Q The same thing is true with the impairment 25 requirements for level 4-B, correct?

Page 179

Q Okay.

- A A pulmonologist is really knowledgeable about asbestos. That would make a lot of difference to that.
- Q But that's true outside of Libby and it's true inside of Libby, correct?
  - A It ought to be.
- Q Throughout -- well, I understand that, but that criticism that you have of individual review applies both outside and inside of Libby, right?
- A Yes, it does, but the same thing that I just said about it holds true is that, how can a non-physician, somebody that's not really knowledgeable about asbestos diseases by having dealt with it on a regular basis make that kind of a decision.
- Q I want to take a look now at the TDP for severe disabling pleural disease level 4-B, and my questions are really very much the same, which is that this is a TDP that seeks to pick out people with severe disabling pleural disease by both of imposing a test for the presentation of the disease as well as by imposing a test for severity of impairment, fair?
- 24 A Yes.
  - Q Okay. And when it comes to the diagnosis,

A Correct.

- Q Okay. So we take a look at the TDP for severe disabling pleural disease, is it such that science says that where it's met, those will be pretty clear cases where people, in fact, have that disease, fair?
- A If you concur with the entire body of science.
- Q Yes, that is, if we look at the entire body of the science, that science --
  - A If you agree with that.
- Q Oh, no, I'm just saying -- I'm saying again, just like I did with severe asbestosis, that science says with -- where these tests, in fact, are met, people who satisfy those tests are highly likely -are clear cases where they have severe disabling pleural disease. Not saying they're the only ones, but once they meet the tests are going to be pretty clear cases under the science; is that fair?
- 20 A Okav.
- 21 Q Is that -- I don't want an okay. Is that 22 right?
- 23 A Yes.
  - Q Okay. Now, we also know as we went through
- 25 with severe asbestosis that the test for severe

46 (Pages 178 to 181)

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Page 182 disabling pleural disease level 4-B will, in fact, 2 exclude people outside of Libby who some might say -doctors might say, in fact, have severe disabling 3 4 pleural disease, right? 5 A Yes. Q And it will also exclude people within Libby 6

who you would say have severe disabling pleural disease, correct?

A Yes.

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Q And I think what you said this morning is that if you took a look at the McCloud study, the McCloud study relates to people who are outside of Libby, right?

A Yes.

Q And I think you said that under the McCloud study more than -- more than 50 percent of the people in the McCloud study wouldn't pass the requirements of level 4-B in the TDP, right?

A Right.

Q When it comes to people within Libby, I think you said that the TDP would have the effect of excluding about the same proportion of people in Libby with severe disabling pleural disease as was reflected in the McCloud study, correct?

A Pretty much.

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1 THE VIDEOGRAPHER: We are going off the record. The time is now 1:15 p.m. This is the end of disk number two in the continuing deposition of 4 Alan Whitehouse.

(Pause in the proceedings.)

THE VIDEOGRAPHER: We're back on the record. The time is now 1:17 p.m. This is the beginning of disk number three in the continuing deposition of Dr. Alan Whitehouse.

**EXAMINATION** (Continuing)

BY MR. BERNICK:

Q Dr. Whitehouse, if we -- strike that.

basis for qualifying people for severe disabling pleural disease -- I think you've already recognized in response to Mr. Finch's question -- that if that is the only evidence of impairment of lung function, that is, it's really truly an alternative way for people to qualify, that would have the effect of allowing people to qualify where the cause of the lower DLCO was unrelated to asbestos, correct?

If DLCO were to be included as an alternative

A Well, I think that could easily be.

23 Q How?

24 A Well, for several -- several reasons. First 25 off, those people have over-disease (sic). Okay?

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Q Okay. A Close to it.

Q So we're talking about roughly the same proportion and effect of the TDP both inside Libby based upon your own experience and outside Libby based upon the McCloud article. Did I get that right?

A Yeah, on the basis though or the caveat I would say about this is on the basis of just that aspect. We're not talking about DLCOs or anything else. Just about --

Q Blunting?

A Just about blunting.

Q Okay. So when it comes to the blunting criteria in level 4-B, that has the same proportion and effect inside Libby as outside Libby, fair?

A Very similar.

18 Q Okay.

19 A Very close.

20 Q Now, if we wanted to include --

MR. BERNICK: Why don't you just change

22 it now?

> So for people outside on the telephone, we have a conspiratorial process here inside the room called changing the tape.

They have big exposure histories, generally. They may or may not have some small degree of interstitial disease. They're very limited and that can be proven, with the treadmill or with being on oxygen and hypoxic or whatever the case may be, and ordinarily, most of those people have significant abnormalities in their pulmonary function, although they may not be below 65 percent. They're in that range though, some -- frequently.

So there's very ample diagnostic evidence that that's the source of it, and then if the CTs were looked at, almost all of those people have some pleural fibrosis that you can't see on x-ray and explains their DLCO and it's clearly asbestos related.

Q Yeah, but I'm getting at a different thing. If this expedited review -- that's what the TDP review speaks to -- expedited review where the submission is done on paper and there are written criteria which if met, you're in, and if you don't meet them, you're not in. That's the -- that's the world that we're operating in.

If you were to make DLCO an alternative measure for the impairment of lung function such that somebody who didn't meet the requirements based upon

47 (Pages 182 to 185)

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- forced vital capacity still could qualify for DLCO, 2 how would you state objective criteria that -- so
- they could check off that would eliminate the cases 3 4 where DLCO is reduced for some source, some reason
- 5 that's not asbestos? How would you do it?

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A I don't think it would be difficult at all. You'd basically say that there's pleural disease present. Everybody -- that everybody agrees that there's pleural disease present. They have abnormal pulmonary function. I don't think you have to put it with normal pulmonary function in that situation, but you have to recognize that some of those people will be right around 65 percent.

You could -- this is the one situation where a CT evidence would help you a great deal and then, say, that there's no other obvious reasons for there to be a reduced DLCO.

- Q So that's how you would write it?
- A I'm not sure exactly how I'd write it. Never even thought about that. But, roughly, I could write something that would cover those people and would protect the TDP from people that don't have significant asbestos disease.
- 24 Q And it would be such that somebody, not a 25 doctor, could review it and say --

collections of data that are Libby specific and --1

- are Libby specific and focus on non-malignant disease 3 caused by asbestos.
  - You have the ATSDR data and then you have the CARD Clinic data; is that right?

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- Q Now, the ATSDR data, would you agree with me, that ATSDR was an independent organization when they came in to gather that data at Libby?
- A You know what I'm going to ask probably about 10 the ATSDR. Are you talking about the original 11 12 Sullivan study?
  - Q I'm talking about the original gathering of the data. I'm not here to talk about authors of studies or anything. I'm talking about data. All the questions I'm going to ask you are all about gathering data.
    - A Oh, okay.
- 19 Q The ATS -- the data that the ATSDR gathered, 20 that collection of -- you've got two collections of data, CARD Clinic data, ATSDR clinic -- ATSDR data, 21
- 22 right?
- 23 A Yeah. You're talking about the x-ray data 24 from the screening --
  - Q Yes, the screening --

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- 1 A Yeah. 2 Q -- that's right, it's all set? They wouldn't 3 have to read the CT scan?
- A Just a check off and all, yeah. 4
- 5 Q It's not in any of your reports, correct?
- 6 A What's that?
- 7 Q That's not in any of your reports, is it?
- 8 A No, I don't think I've ever put that down on 9 paper. That's the first time anybody's actually asked me that. 10
  - Q I asked you.
  - A You asked me. I could do it and it would be -- I wouldn't want it to be unfair. I mean, you know, I spent -- this is a digression a little bit, but I spent years doing disability evaluations for the State of Washington and was very successful in it because my track record was one of being right in the middle of the road. You know, I wasn't about to go along with somebody that didn't have it, and so it was pretty even. Now, that's not always the case with IME docs, but that's possible to do that and to write it in such a way that it could be done.
    - Q Let's talk about the Libby data and what the Libby data shows about that. Okay?
      - As I understand it, there are two basic

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- A -- that one?
- 2 Q -- the screening data.
  - A Right. Okay.
- Q So when it came to the -- are you aware of 4 5 any other basic collection of non-malignant data at
- 6 Libby beyond the ATSDR and the CARD Clinic?
  - A No, only insofar as the radiologist in Libby, Steve Becker, who is a reasonably accurate reader as
- 8 9 far -- and was part of that reading with the ATSDR,
- 10 so I guess you'd have to include him in that.
- Q Okay. So now the ATSDR data was gathered by 11 people who were independent, correct? 12
  - A Yes.
  - Q The ATSDR data was gathered pursuant to an established protocol that had to be followed the same way for all people, correct?
    - A I think so, yeah.
- 18 Q The ATSDR data is all available to 19
  - constituencies of people in this case, correct?
  - A Yes.
- 21 Q There are studies that have been published on
- 22 the ATSDR data, correct?
- 23 A That's correct.
  - Q And the ATSDR data is -- would you agree,
- 25 representative of the disease picture or pattern in

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Libby? 1

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A We have to be sure what part of that you're talking about and what part of it was published and by whom.

Q Not talking about published, just talking about the data.

The screening data that was gathered, that's a representative collection of data when it comes to representing the pattern or picture of Libby?

A At the time it was, yes, I think so.

Q Okay. Now, with respect to the CARD Clinic, I want to ask you the same kinds of questions.

Would you say that the data was gathered for the CARD Clinic by people who were in all cases independent?

A What do you mean?

Q Didn't have any other agenda.

A I think generally that's true. I think that pulmonary function data and chest x-ray data, which includes Becker's as well as our readings in there, I think was pretty consistent and I don't -- it wasn't biased. I don't think.

Q Well, that's what I'm asking. It wasn't biased?

A Huh-uh. (Answers negatively.)

1 Q Where is it written?

> 2 A In the -- in the procedure manual for the --3 for the -- for the lab.

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Q For the lab?

5 A I don't know where it is, but I know it's up 6 there.

7 Q Okay. But what about when it comes to taking exposure history? Is there a --8

9 A They don't take the exposure histories. The 10 techs don't.

Q Oh, you mean the CARD Clinic?

12 The other people in the CARD Clinic?

14 A Yeah, those are taken both by the --

15 Q But is there a written protocol?

A Yeah, there is for the nurses. There's a 16 17 written protocol.

18 Q Do you know, were those ever made available 19 publically?

20 A I don't know, but I know that there's a 21 series of forms that they use concerning that.

22 There's both a check list and then things that they 23 can add on in handwriting as well, and that's been

24 used -- and those are in everybody's chart, and

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they've been used pretty much since the inception of

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Q But when it comes to protocol, there's no protocol that was followed by the CARD Clinic in gathering the data that is in their files, correct?

A Well, yes, there actually is because when the people came in from screening, they took an interval history from them. Some of that was done by nurses. A lot of that is in a database now. They had a new chest x-ray taken. They had pulmonary function taken that the doc saw and there's a dictated note concerning the medical care, so --

Q But that's a --

A -- it closely all followed the same. There's more than one doc, but it was --

14 Q Different doctors --

A -- similar.

Q -- you know, when it came to the pulmonary function test, how it was administered, was there an absolute set protocol on how the pulmonary function test was to be administered with respect to all people who are part of the CARD Clinic data?

A I think pretty much so. It's pretty much the same protocol that I used in my practice for years. I trained those people up there.

Q Is it written?

25 A Yeah, certainly. 1 the clinic in --

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2 Q What about --

A -- 2000.

4 Q What about in reading x-rays? Is there one 5 protocol that's been followed in reading all x-rays 6 at the CARD Clinic?

A Probably not. They're all read by -- they were all read by the radiologist at the hospital.

Q But different radiologists?

A No, all the same one, pretty much.

11 Q All the same one?

A Yeah, he occasionally had to cover it, but 12

13 not very much. For a long time, I over-read most of the x-rays there --14

15 Q When you read --

A -- but not anymore. 16

Q I'm sorry.

When you read the x-rays, you didn't read 18 them always according to the ILO classifications? 19

20 A Oh, no, never did.

Q Well, that's what I'm saying.

22 There wasn't one procedure that was followed

by the radiologist in reading the x-rays, fair? 23

24 A As far as ILO is concerned, no, we didn't use

ILO at all. 25

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Page 194 1 Q Okay. And when it comes to how the different 2 radiologists read the x-rays, we know that you often read the x-rays somewhat differently than Dr. Becker, 3 4 correct? 5 A Not nearly as often as you might think. Q I didn't ask you that. I said just --6 A Occasionally. 7 Q -- often. 8

- 9 A Occasionally, I did, yes.
- 10 Q In fact, you had some critical things to say about Dr. Becker's readings? 11
  - A I did early on, not -- not recently.
- 12 13 Q But that wouldn't -- that would still affect the data that the CARD Clinic has, that is, you don't 14 have the same degree of uniformity in the data from 15 the CARD Clinic as you do in the data from the ATSDR, 16 17
- 18 A Oh, I think -- I think we've got very good 19 data.
  - Q Didn't say that.

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21 It's not as consistent. If you're looking 22 for consistency, it's not as consistent as ATSDR, 23 correct?

MR. LEWIS: I'm going -- I'm going to object as to the word consistent because that -- that problem is that there's this huge database that they've been putting stuff into and nobody that's able to extract it out.

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Q Okay. Well, that's really what I'm kind of getting at.

In this case what we have seen out of the CARD Clinic is --

8 MR. BERNICK: Is that the 850 or the 9 950?

10 MR. FINCH: It's the 950, plus a handful of other people. It's on Exhibit-2-A. 11

Q (By Mr. Bernick) So when it comes to the data from the CARD Clinic, certainly, parties to this case do not have all of the data from the CARD Clinic, indeed, a huge portion of the data from the CARD Clinic is not available in this case, correct?

A I think that's probably true, yeah. It hasn't been as yet.

19 Q And certainly there --

20 A You do have all the charts now, right? Yeah, 21 you've got every one of them at one time or another from my understanding is that -- that there was some 22

23 significant problems in mislabeling and that you

24 didn't know what you had for a while because the

numbers were mislabeled, but you at one point had 25

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is a very vague term. I think your prior question I wouldn't object to, but you're talking -- go ahead.

A Well, the ATSDR was running the Masa\* Clinic which is the Montana -- the money that came through the State of Montana couldn't come directly to it, and they were running that for quite a while and they had a variety of people that were working there, one of whom we know was, you know, just -- I don't know how to put it, but I know darn well we didn't get good data from that person at all and that went into the database, I'm sure, and ATSDR's database.

But almost all the stuff that's in the charts that's been filtered by a number of people to get -make sure that we have accuracy, and in that sense, it's pretty much a consistent protocol for doing everything. Probably better than most any clinic that you'd see.

Q (By Mr. Bernick) When it comes to the availability of information from the CARD Clinic, I think you would agree that almost half of the medical information with respect to people who have been seen at the CARD Clinic is, in fact, not available publically or to the people in this case, correct?

A Well, right now -- well, it is available now. I mean, everything is pretty much available. The 1 copies of all the 950 people.

> Q I'm not talking about the 950. I'm talking about the 1,800. Let's be clear.

The CARD Clinic data goes way beyond the 900, 950, correct?

A That's true.

Q And all that's been made available in this case is the 950 or thereabouts, correct?

A And that's basically all I've been talking about is those 950.

Q Well, again, I'm just establishing,

Dr. Whitehouse, that in contrast to the ATSDR data 12 which is all available with respect to the CARD 13

14 Clinic, almost half the data is not available in this 15 case, correct?

A Yeah, and that's true, and basically the 16 17 reasons for it is HIPAA laws.

Q I didn't --

A Well, they're the HIPAA laws.

20 Q Well, I'm not blaming you for --21 (Simultaneous talking.)

Q (By Mr. Bernick) I'm not blaming you for it. 22

23 I'm just saying it's --

24 A Oh, it's not my fault anyway regardless.

25 Q Right. It's a fact that it's not available

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1 in this case, correct?

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- A But I think that you have to realize that we are under the constraints of the HIPAA laws, probably more than most people are because we are a clinic that's in many respects federally funded or is getting to be federally funded, so --
  - Q Which you'd also agree --
- A -- there's a great deal of care about that. 8
  - Q Would you also agree with me that there are no studies with respect -- published studies with respect to the 1,800 patients diagnosed in the CARD Clinic?
    - A There are not.
- Q Would you also agree with me that you don't know -- strike that. 15

When it comes to the CARD Clinic data, you've made reference to all these databases. How many databases are maintained at the CARD Clinic with respect to people who would have been diagnosed with asbestos-related illness?

A It's basically two, the chart and then there is a database that the EPA has put together which data has been entered into for about the last year and a half including back data, and my understanding

is that they are now caught up with everybody in

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- 1 Are there any electronic databases containing the CARD Clinic data?
  - A There is, concerning all the patients.
    - Q Concerning all the patients?
- 5 A To my knowledge.
  - Q Okay. And who -- and who -- is that the one the EPA has done?
- 8 A Well, the EPA set it up, but it's now our 9 database.
- 10 Q Okay. And that database includes all the 11 people who have come through the CARD Clinic ever or just the people that have come through the CARD 12 13 Clinic in the last eighteen months?
  - A It should, to my knowledge, include everybody including the people that are normal.
  - Q Okay. Does it include all the people who have ever come through the CARD Clinic, the historical patients?
- 19 A I think so.
  - Q Okay. Does --
- 21 A I can't answer your question.
- 22 Q Does it include all the information that's in
- 23 the charts?
- 24 A I hope it does. 25
  - Q So it literally is supposed to be everything?

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there they're entering.

- Q What's the difference between the two databases?
- A Well, the chart is all right there, x-ray reports, things like that. It hasn't been put into a database. What they do is they use that, plus the patient interview and then put into the database when the patient comes in.
  - Q So we have two databases?
- A Well, you asked me about a database. It's a database. It's not organized in a computer or anything, but that's where the data is.
- Q Okay.
- 14 A So it's in the charts.
  - Q But I misunderstood.
- 16 So you have all the charts?
- A I have all the charts. 17
- Q And those are paper records for everybody 18
- who's come through CARD? 19
- A Mm-hm. (Answers affirmatively.) 20
- Q You have to respond orally. 21
- 22 A Yes.
- 23 Q Okay. When I ask about databases, I'm
- talking about compilations or collections of 24
- information electronically. 25

Page 201

- 1 A It's literally supposed to be all the
- pertinent data and there's some other stuff in there
- like social studies and things like that that may not
- be in there, but for all the pertinent data 4
- 5 concerning their asbestosis, it's in there.
  - Q Okay. Do you have access to this database?
- 7 A Probably.
  - Q Okay. Who else has access to the database?
  - A I would guess Brad Black\* and I know Steve Levine\* knows it, Mount Sinai, who's one of the people who's out there fairly frequently, and several

12 of the nurses would have access to it. 13

- Nobody -- to explain this. Nobody has done anything about this because we haven't even had -- we
- 15 barely have enough money to keep that place open much
- less spend a lot of time with people doing database, 16
- so we will have it because we just got some pretty 17
- decent sized grants that will allow us to do that, 18
- 19 but you have to realize that we were dependent on
- 20 Grace for money to keep that place running and Grace
- 21 wasn't providing it.
- Q So have you -- strike that. 22
- 23 Have you had access to that database for
  - anything that you've done in connection with this
- 25 case?

51 (Pages 198 to 201)

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Page 202

A Would I? 1

Q Have you.

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A Have I? I have not accessed it. I assume 3 4 that I can.

- Q What about Dr. Frank?
- A No, probably not because he's not really a member of the CARD staff which I am, of course.
- Q And certainly that database has not been available -- the electronic database has not been made available to the parties in this case, correct?
- A I don't think it's been used except to collect the data for the present time.
  - Q Well --
- A But I think it's up to date and I think it's got a lot of data in it, but I don't know when it's going to be accessed. Probably in the next year when the EPA -- when it comes in.
- Q If there were -- if there is a unique form of diffuse pleural thickening that's evident in people in Libby, should we be able to see it if we study the ATSDR screening data?
- A No. 22
- 23 Q Just not apparent at all?
- 24 A Won't be apparent unless you follow people longitudinally and you have physician input, but 25

each one of those layers and peel it off and 2 distinguish it.

3 So let's begin -- recognizing what you just 4 said, let's begin with how diffuse pleural 5 thickening, severe diffuse pleural thickening -that's the only kind of pleural thickening I want to 6 talk about -- severe diffuse pleural disease. Let's 7 8 talk about how it presents itself --

Page 204

A Okay.

Q -- in Libby, and I want -- what I want to know is: In the objective presentation of severe diffuse pleural thickening at Libby, tell me whether and how it is different from diffuse pleural thickening, severe, outside of Libby.

MR. LEWIS: Object to the form of the question.

A Rarely had I ever seen diffuse severe pleural thickening outside of Libby. I know it's described. People have seen it. It's been reported. Pleural deaths have been reported.

As I mentioned before, the rapidity of its progression as part of it, that's clear to me, and progression on to death which is rarely ever described and we've had a number of those, and then the other factor, I think, that we haven't even

Page 203

there's no physician input to the ATSDR screening.

Q Okay. Likewise, if we look at the CARD information, would you say that there's no way to see any unique form of diffuse pleural thickening at Libby unless you have access to the details of the charts?

A Well, first off, I object to your term unique which is something that Grace has managed to --

Q Well, I'll withdraw the -- I'll withdraw.

A Let's leave that word out of it because it's not unique.

Q Okay. Well, then let me -- that's fair. Let me then ask you the question.

Dr. Frank has told us under oath that he does not believe that there is a different disease or a special disease or form of disease, pleural disease in Libby. It's just the same disease. Would you agree with that?

A Well, I would agree that it's basically the same disease that has been occasionally seen in chrysotile, but the frequency of it and the predominance of it and the progression of it to death is different.

Q And we're going to pursue that, but I want to peel this off layer by layer. We're going to take

Page 205

1 discussed is the fact that a number of people have

2 extremely severe functional abnormalities in

pulmonary function, but pleural thickening is not

that thick, and that basically it's two to three 4

5 millimeters in thickness, but is everywhere and

results in incredibly severe physiologic 6

consequences. That's one of the things we saw in 7

that mortality study is people that died from that,

9 of pleural thickening, so I don't know if that 10

answers your question now, but --

Q (By Mr. Bernick) Yeah, it does.

A -- those are the differences.

Q It does. That's fine.

When you think about how the Libby pleural disease, severe pleural disease is different, those are the three things that you would recite: The fact of the rapidity of progression, progression to death, and the fact that in some cases the pleural thickness is not as pronounced as you would see outside of Libby?

A Yes.

22 Q Okay. Now, of all of those, we're going to 23 take -- we'll just take them separately, so I want to 24 put to one side now rapidity of progression and 25

progression to death and just talk about the one that

52 (Pages 202 to 205)

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Page 206

you've identified which says you can have severe pleural disease at Libby without that much thickness, but -- without that much thickening of the pleura. 3

A Yes.

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Q That is a difference that you point to that would say the disease in Libby presents itself somewhat differently in that respect from the disease outside of Libby, fair?

A Yes.

Q That's really what I want to talk about. First issue is: Is the disease presenting itself differently inside and outside Libby, and the one thing you've identified is that inside Libby people with increased thickness but not that much can still have severe impairment, fair?

A That's fair, but there's one other thing I didn't -- I didn't say in that and I probably should have and that is preponderance of what we see is pleural disease with much, much less interstitial disease.

Q Well, I --

A And that's a real difference from what --22 23 what's seen in chrysotile disease.

Q No, no. I'm talking about the presentation of the pleural disease, not the interstitial disease,

Page 208 pleural thickening, severe diffuse pleural thickening

outside of Libby contains no reference to whether there's interstitial fibrosis, correct?

A It may, yes.

Q No, it doesn't may.

Can you tell me of anybody who's defined diffuse pleural thickening outside of Libby who includes in that definition interstitial fibrosis?

A Oh, in the definition or --

Q Okav.

A -- in the observation of the patient?

12 Q I didn't --

A The definition of diffuse pleural

thickening --

(Simultaneous talking.)

Q (By Mr. Bernick) The definition of diffuse pleural thickening in patients outside of Libby makes no reference --

A No, it doesn't include -- no, it doesn't include interstitial disease. No, it wouldn't. There's no reason why it would.

Q Right.

22 23 And the definition of diffuse pleural 24 thickening inside of Libby, the one that you like, doesn't include interstitial involvement, correct? 25

Page 207

the pleural disease.

A Okay. Well, you're -- in a sense though, you're asking me about the differences that Libby has and that's one of the differences.

Q Well, but if somebody has diffuse pleural thickening, severe diffuse pleural thickening outside of Libby, they can have that with or without interstitial involvement at all?

A That's true except it is much less common than it is at Libby.

Q But that --

A That's not the point. 12

Q -- has nothing to do with the presentation.

A What's that?

Q That is to say, for somebody who has diffuse pleural thickening outside of Libby, there are characteristics of the thickening of the pleural, you know, blunting of the angle, et cetera, including impairment, there's a presentation that it has diffuse pleural thickening as defined outside of Libby without reference to interstitial involvement, correct?

23 A Yeah, it is uncommon, but, yes.

24 Q Well, but, no. The description -- any 25 definition, any established definition of diffuse 1 A No.

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2 Q Am I right about that?

A That's right.

Q Okay. So if we're comparing diffuse pleural thickening inside/outside Libby in its presentation for diagnostic purposes, your only observation of the difference is that outside of Libby, there's a greater thickness in the pleural that's reported, inside of Libby, you've observed severe diffuse pleural thickening without that much thickening in the pleura, fair?

A That's true, but there's -- you know, you can't consider that by itself. There's another aspect to this that we haven't even talked about, exposure history. We're talking about people with fairly severe pleural thickening or --

Q I'm talking --

(Simultaneous talking.)

19 Q (By Mr. Bernick) That's why we really have 20 to peel this thing. I'm trying to be very systematic about it. Okay? I'm talking about the presentation 21 22 when there's a diagnosis done based upon a

23 presentation.

24 A That's part of it. See, the presentation 25 that we see in the clinic includes the most important

53 (Pages 206 to 209)

Page 209

Page 210 Page 212 aspects of it or the hallmarks of a diagnosis of 1 Q That's exactly what you said of McCloud. 2 asbestos disease. The exposure history. Okay? The That's why they were the same. physical exam. What the x-ray looks like. What the A Oh, no, McCloud was referring to the fact 3 4 pulmonary functions look like. Those are all 4 that in his study that he did of diffuse pleural 5 5 important -thickening, you're right about that in the sense that Q All I'm -only 50 percent had pleural thickening. There's 6 7 7 other studies since then that have shown more. (Simultaneous talking.) Q (By Mr. Bernick) Okay. In the presentation, 8 McCloud has demonstrated that you can have 8 9 now you've identified that you can have severe 9 diffuse pleural thickening like we have without much pleural disease with not so much thickness in the 10 10 in the way of blunting. What the -pleura. That's one thing --Q And impairment --11 11 A -- TDP is saying and what the 2004 and the 12 A Right. 12 13 Q -- that you would distinguish, right? 13 ILO is saying, that no, no --14 A Right. 14 Q No, no, no. A -- diffuse pleural thickening doesn't exist 15 Q And now you're saying another thing you would 15 unless there's a blunted angle. distinguish in the presentation is that the exposures 16 16 in Libby associated with diffuse pleural disease are 17 Q You're -- we're --17 A That's a very --18 less? 18 19 A As best we can tell, they can be very low 19 Q -- again meandering from --20 A -- big difference. I'm not meandering. That exposures and still result in severe pleural disease. 20 Q Do we now have the difference in presentation 21 21 cuts to -in severe pleural disease at Libby versus outside, 22 Q Dr. Whitehouse, let's go back --22 23 that is, thickness and history of exposure? 23 A -- the heart of the matter. 24 A Those are two that are important, yes. 24 Q That's fine. We'll go back to question and 25 Q Well, I just want to know. Is there -- this 25 answer. Page 211 Page 213 is your opportunity. I want to be totally fair with The gentleman over here is not going to be 1 2 you. I'm going to go through these very carefully. 2 able to verify what --3 A Well, let's go -- let's go on further then. A Yeah, I'm not asking him to verify anything The other thing is that a large majority of people 4 4 at all. that have diffuse pleural thickening do not have 5 5 Q Well, no, you're looking over there like there's going to be some kind of wisdom, as there 6 blunting -always is from that side of the room. 7 Q I didn't --7 MR. LEWIS: Now, Counsel, just wait a 8 A -- of the costophrenic angle. That's a 8 9 difference in the presentation also. 9 second. That's out of line. The doctor glanced at 10 Q Well, no, but -- no, because you have people 10 me. He's not glanced at me at any other time during with diffuse -- lots of people with diffuse pleural 11 11 this deposition. thickening outside of Libby without blunting of the 12 12 MR. BERNICK: I know. That's why -costophrenic angle. We just established that. 13 MR. LEWIS: You're reading something 13 14 A Not to that extent. 14 into that.

Q Well, and the fact that you told me they're exactly the same proportion outside and inside of Libby.

A No, I didn't give you -- you didn't hear me say that. We were talking about the fact -- no, you didn't hear me say that. You misunderstood what I said or I misspoke, one or the other.

The presence of -- we have -- approximately half of our people with diffuse pleural thickening that have severe impairment do not have blunting of the costophrenic angle.

54 (Pages 210 to 213)

MR. BERNICK: That's why it was

MR. LEWIS: And putting it on the

MR. LEWIS: You don't need to comment

MR. LEWIS: We've got everything on

record, that's totally improper. Why don't you just

ask your questions and he'll answer them. Okay?

Q (By Mr. Bernick) Dr. Whitehouse --

on this side of the table or anything.

Q (By Mr. Bernick) Dr. --

video, so just do your job.

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notable.

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Page 214 Page 216 MR. BERNICK: Thank you. Are you done? 1 1 this is not just, okay, here's what -- I'm going to 2 Done? Okay. ask you for the data and the analysis that drives every single one of these things. That's where I'm 3 Q (By Mr. Bernick) Dr. Whitehouse, 3 4 presentation, you say that severe pleural -- diffuse 4 going. Okay? 5 pleural thickening at Libby differs in presentation 5 So when it comes purely to presentation, you in that you have people who are -- have got severe tell me the people, the individual people that you 6 7 pleural thickening even though the thickness of the have diagnosed or that you have seen the diagnosis of 7 pleura is not as pronounced as it would be outside of at Libby who present with severe diffuse pleural 8 8 9 Libby? 9 thickening, but have a lesser thickness in the pleura 10 A They have severe physiologic impairment even 10 than what you have seen -- what has been seen outside though the thickness of the pleura is less than you 11 11 of Libby. might expect but is diffuse --12 12 MR. LEWIS: I object to the form of --13 Q Okay. 13 Q (By Mr. Bernick) Who are those people? 14 A -- is what I said. 14 MR. LEWIS: I object to the form of the 15 Q And another thing you said was different in 15 question. I object to assuming facts not in presentation is that they have lower exposure than evidence. I object to the compound nature of the 16 16 people outside of Libby? 17 17 auestion. 18 A As best we can tell, that's true. 18 Q (By Mr. Bernick) Okay. I want to know who 19 Q And then you further said that the 19 those people are. 20 frequent -- the proportion of the people who do not 20 A I can't give you the names right off the top have blunting of the costophrenic angle is greater? of my head. I could give you the mortality study. 21 21 A Yeah, it's greater than what is being 22 Q No, no, I don't want that. 22 23 required by the TDP. This is requiring 100 percent 23 A Those people are in that study. 24 to call it diffuse pleural thickening, and what we're 24 Q I want to know -saying is it exists without that. 25 MR. LEWIS: Object. Object to you 25 Page 215 Page 217 arguing with the witness. Just ask your questions. 1 Q I understand that, but that's not my issue. 2 Don't stop him in the middle of his answer and say My issue -- my question is not directed at the TDP. 3 It's directed at the presentation of the disease. no, no, no, no, no, no, no. That's not a proper When it comes to the presentation of the 4 4 function. 5 disease, you say the disease presents itself 5 MR. BERNICK: You're just making it 6 differently at Libby and outside of Libby when it 6 worse. comes to the thickness of the -- the thickening --7 7 MR. LEWIS: I'm not making it worse. extent of the thickening, less exposure at Libby, and 8 MR. BERNICK: Yes, you are. 9 lower frequency of blunting of the costophrenic 9 MR. LEWIS: I just want you to ask a 10 angle? 10 question of the witness without making some MR. LEWIS: Objection. Compound. 11 11 preparatory --Q (By Mr. Bernick) Did I get that list right? 12 12 MR. BERNICK: We're at the point --13 MR. LEWIS: And object to the form. 13 MR. LEWIS: -- statement. 14 A What's that? 14 Q (By Mr. Bernick) We're at the point, Q (By Mr. Bernick) Did I get the list right? Dr. Whitehouse, and, Counsel, where it's now time to 15 15 A Yeah, that is amongst some other things. 16 16 find out the data that drives the opinion. That's Q No, no, no. You keep on going amongst some 17 what I'm doing. 17 other things. This is not -- this is not a question, 18 MR. LEWIS: Just ask your question. Dr. Whitehouse, I'm just asking you -- you've been 19 19 MR. BERNICK: I'm going to ask -involved in this for a long time and I'm giving you 20 I'm -- I'm -- just --20

55 (Pages 214 to 217)

MR. LEWIS: Just ask your question.

MR. BERNICK: No, you're not. You're

MR. BERNICK: Cool down.

MR. LEWIS: I'm calm.

popping up and down all over the place.

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the latitude -- and none of this is in your report.

Q -- I'm asking you -- and I'm going to ask now

for the underpinning for each one of these things, so

I'm giving you the latitude, so --

A It is in the report.

Page 218 Page 220 MR. LEWIS: Counsel --1 1 the basis is. 2 Q (By Mr. Bernick) Dr. --2 So you've offered an opinion that says the MR. LEWIS: Counsel, that's enough of people that you've seen at Libby with severe diffuse 3 3 4 that. If you keep doing stuff like that, you know --4 pleural thickening are different because they have MR. BERNICK: It's true though. You've 5 thin -- thinner pleuras, right? 5 A That's part of it. 6 just got to keep your seat. 6 7 MR. LEWIS: I haven't left my seat. 7 Q That's --8 8 Okay? A That's only one. 9 MR. BERNICK: Yeah. 9 Q That's the first one. 10 Q (By Mr. Bernick) And so, Dr. Whitehouse --10 And so I now want to know the data, the MR. LEWIS: Wait a second. Wait a specific data that you're referring to, and as I 11 11 12 understand it, that data is within the medical 12 second. 13 MR. BERNICK: You're going to prevent 13 histories of some of the 79; is that fair? me from asking the question now? 14 A It's also on that sheet that was the summary 14 15 MR. LEWIS: Well, just -- I just want 15 sheet that you have. There's one in your exhibits. you to ask questions and stop making comments on what 16 Q The data -- the data that shows the thinness 16 everybody is doing in the room. Just do your job and is with respect to some group within the 79; is that 17 17 18 ask your questions and don't make speeches in each of 18 riaht? 19 your questions. 19 A That sheet has on it the number of people Q (By Mr. Bernick) Dr. Whitehouse, I want you 20 20 that have that kind of pleural thickening on it. to identify to me the specific patients in some 21 21 Q No, that sheet -fashion by reference to some document, some piece of 22 A They're already separated out. 22 23 paper, the specific patients who you say at Libby had 23 Q The counting sheet, no. The counting sheet 24 presented with severe diffuse pleural thickening even 24 is just a counting sheet. It doesn't tell me who though the thickness of their pleura is less than those people are. 25 25 Page 219 Page 221 what has been reported in the literature outside of 1 A There's no way I can tell you here today. 1 2 2 Okay? 3 A I have in that -- now, you're going to have 3 Q Let's be clear -to listen to this. Okay? I have --A You give me the chart --4 4 5 Q As long as the response -- as long as you 5 Q Just -- Dr. Whitehouse --A -- and I'll tell you which ones they are. 6 answer the question, I'll be happy to listen. 6 A I can't give you a name off the top of my Q Just -- just take it a step at a time. I 7 7 8 want to do this very systematically. 8 head. I've got 79 patients in there, some of whom 9 may have thin pleural thickening, some of whom -- or 9 We're on the point of the difference in 10 half of whom don't have blunted angles, and I'd have 10 presentation that has to do with thinness. That was

to go through every single one of those charts in order to define which one of those are because I don't have it defined in the cheat sheets that I've got with me here.

They have numbers on them. I have patients' names of all those people, plus I have initials for the ones that are protected because they're not -you know, they're not people that are claimants, but I can't go give you a single name out of there. There's no way I can do that. That's an unreasonable request.

Q Dr. Whitehouse, with due respect, that's not something that you're going to be deciding. The judge is going to decide it. All I -- I have one job which is to find out what your opinions are and what

11 one of your comments. The source of your data, your 12 data to support that comes from patient histories, 13 fair?

14 A True.

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Q And particular patient histories that are the source of that opinion that show that data, the particular patient histories are within the 79 people that you have grouped within the mortality study, correct?

A You -- you have --

Q Could you just answer that question?

No, I'm going to answer your --Α

23 Q Don't --

Α No, you're going to let me finish my question

25 (sic) here.

56 (Pages 218 to 221)

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Page 222 Page 224 1 Q No, no, no. 1 Q Are they the same people? 2 A Yes, you are right now. 2 A Some of them are or not really because most 3 of those are dead that are in the mortality study. 3 4 4 Obviously, they've been dead over the last eight or A You're going to let me --5 5 MR. LEWIS: Dr. Whitehouse, let -- can ten years, but a lot of it also comes from patients that I see on a regular basis. we take a break? 6 6 7 7 Q Which patients? MR. BERNICK: You can absolutely take a 8 A You know, when you're in private practice and 8 break. 9 9 you have a large body of --MR. LEWIS: He's going to ask the same 10 question when he comes back, but let's just take a 10 Q Dr. Whitehouse -break and cool down here. I think it'd be a good --A -- patients --11 11 MR. BERNICK: Sure. 12 Q With due respect --12 13 MR. LEWIS: -- thing to do. 13 A -- that's where you get your information. 14 MR. BERNICK: Good. 14 Q With due respect, I'm just asking a factual 15 THE VIDEOGRAPHER: We're going off the 15 question. You don't have to give me any explanation record. The time is now 1:56 p.m. 16 about what your practice is like or anything. It may 16 17 or may not be relevant. I'm interested in where the 17 (Recess.) 18 THE VIDEOGRAPHER: We're back on the 18 data comes from. You've now told me that there's 19 record. The time is now 2:02 p.m. 19 data from people in the mortality study, the 79, 20 correct? **EXAMINATION** (Continuing) 20 21 BY MR. BERNICK: 21 A Yes. Q So, Dr. Whitehouse, we're on the first 22 Q And you've now also told me that this 22 23 difference that you've pointed out in the 23 particular difference has been noted in your practice 24 presentation of severe diffuse pleural thickening in 24 in people who are not in the mortality study, Libby versus elsewhere which is the thinness of the 25 correct? 25 Page 225

Page 223

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A People that are still alive.

Q Right.

And so if I want the data, I need to know who those people are.

A I cannot identify those people. You can identify the ones in the mortality study which all have measurements very readily because you do have

Q Now, let's talk about the people who are in the mortality study that you just had reference to.

The people in the mortality study, I need to know which ones of the people in the mortality study you particularly look to in saying that people in the mortality study show severe diffuse pleural thickening with less than the thickness that's observed in the literature. You need to tell me who those are. I don't know who you would consider to have a thin -- thinner pleura than what's reported in the literature and I don't -- hang on -- and I don't know which ones of those people you say are also severely impaired, so I need to know who they are.

Who are they? A I cannot provide that data to you except on those spreadsheets that were provided to you that were supposedly going to be brought to this

all that data.

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57 (Pages 222 to 225)

**Buell Realtime Reporting** 206 287 9066

all these people in the clinic.

pleura where people still are -- have severe

difference has been observed at Libby.

honestly don't know, Dr. Whitehouse.

A Yeah, you were given it.

impairment, and I asked you the data, the source

A You actually have the data. You were given

yellow spreadsheets, a very large spreadsheet that's

the measurement data of the pleura and the extent of

the data for every one of the people that died in the

about six pages taped together which has on it all

Q Well, that's -- that may or may not -- I

A I asked that specifically of the attorneys

before this deposition to make sure that you did have

Q My question to you is: I'm assuming then

that the data that you're now saying supports your

A Well, that's the numbers that we've actually

measured, although it also comes from my experience

with dealing with all these people in the clinic with

opinion comes from the mortality study; is that

material that you have when you say that that

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24 25 that.

correct?

mortality study.

In re: W.R. Grace & Co., Debtor

Alan C. Whitehouse, M.D.

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Page 226
                                                                                                               Page 228
1
    deposition.
                                                             1
                                                                   Q Is this --
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              MR. BERNICK: Are you aware of --
                                                             2
                                                                   A -- longitudinal form.
                                                                   Q Well, just so we're clear, is Exhibit-15 the
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              MR. LEWIS: Yeah, we gave them to you
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    at the start of this deposition. You weren't here,
                                                             4
                                                                 yellow spreadsheet that would reflect the data that
    Counsel. Your co-counsel has had them all along.
                                                             5
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                                                                 you have referred to just now in your testimony?
              MR. BERNICK: No, no, no. This looks
                                                                   A Yeah, all the ones that I've seen were
                                                             6
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                                                                 yellow. This, obviously, is not, but this is the
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    nothing like that at all.
              MR. LEWIS: I don't know that that's
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                                                                 spreadsheet.
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    the one we're talking about though. That's not the
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                                                                   Q Okay. So why don't you just tell me the
                                                                 people on the spreadsheet who you say have thinner
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    one with the measurements on it.
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                                                                 pleura but still severe diffuse pleural thickening?
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              MR. LONGOSZ: That's what he gave us at
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    the start of the dep.
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                                                                          MR. LEWIS: Excuse me, Counsel. May I
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              MR. LEWIS: That's not the one with the
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                                                                 have a copy, please?
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    measurements on it.
                                                            14
                                                                          MR. BERNICK: Yeah, sure. (Document
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       Q (By Mr. Bernick) So we're clear,
                                                            15
                                                                 passed.)
   Dr. Whitehouse, this exhibit which is -- I don't know
                                                            16
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                                                                          MR. LEWIS: Thank you kindly.
    what it was marked as, but it was Final Key Libby
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                                                                          MR. BERNICK: Sure.
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    Patients, the document that was given to us at the
                                                            18
                                                                              (Ms. Rickards returns from
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    outset of the deposition has a list of people. There
                                                            19
                                                                               recess.)
                                                            20
    are a total of over 900 people. It does not contain
                                                                   A Can I take this apart with a staple
21
    the information that you and I were just talking
                                                            21
                                                                remover --
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    about, fair?
                                                            22
                                                                   Q (By Mr. Bernick) Sure.
23
       A No, it does not, no.
                                                            23
                                                                   A -- so I can just match it up? I have to
24
       Q Okay. So this yellow spreadsheet --
                                                            24
                                                                 match the names here. Okay. The first one is the
25
              MR. BERNICK: Nate, have you ever heard
                                                                 initials which is --
                                                            25
                                                  Page 227
                                                                                                               Page 229
    of the yellow spreadsheet?
                                                                   Q Just mark it off. Just mark it off with a
                                                             1
              MR. FINCH: I don't know about the
                                                             2
2
                                                                 one. One indicating all -- one will indicate the
3
    yellow spreadsheet. Dr. Whitehouse has produced a
                                                                 people who you say show --
    lot of stuff. Whether it was in that, God only
                                                                          MR. LEWIS: Well, they're numbered.
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                                                             4
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                                                             5
                                                                Can he just go through and just give the numbers?
    knows.
                                                                          MR. BERNICK: No, he -- if -- if --
6
              MS. BLOOM: Does it have yellow
                                                             6
                                                                 yeah, he can go --
7
                                                             7
    markings on it?
8
              MR. FINCH: Yellow markings on it?
                                                                   Q (By Mr. Bernick) Or you can go through and
9
              THE WITNESS: Ah-ha, there it is.
                                                             9
                                                                 give me a list of numbers. Whatever is easier for
10
                                                            10
                                                                you.
              MR. LEWIS: Come on.
11
              THE WITNESS: It may not be yellow,
                                                            11
                                                                   A The best thing to do is to circle the ones.
                                                                   Q Okay. Circle it, but I want -- then we're
12
    but --
                                                            12
                                                            13
                                                                 going to use a star on the next difference and -- I'm
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              MR. LEWIS: Let's --
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              THE WITNESS: Excuse me. I'm sorry.
                                                            14
                                                                 serious. I really want --
       Q (By Mr. Bernick) Okay. This has been marked
                                                            15
                                                                          MR. FINCH: And then a smiley face on
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16
    before. This is the 76 mortality CH -- I'll mark
                                                            16
                                                                the next difference.
                                                            17
17
    this.
                                                                          MR. BERNICK: Yeah, that's right.
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                  (Exhibit-15 marked for
                                                            18
                                                                   A Well, they're different columns, so it's --
                                                            19
                                                                   Q (By Mr. Bernick) I understand.
19
                   identification.)
       Q (By Mr. Bernick) Does Exhibit-15 contain the
                                                            20
                                                                   A There shouldn't be an overlap.
20
    data that you're talking about?
                                                            21
                                                                   Q First question are those people you say have
21
22
       A Well, it's going to -- yes, it does.
                                                            22
                                                                 a different presentation of diffuse pleural
23
       Q Okay. So I --
                                                            23
                                                                 thickening in Libby versus outside of Libby by reason
24
       A It's got -- it's got the measurements of the
                                                            24
                                                                 of thickness.
25
    pleura on it, but they're not in a --
                                                            25
                                                                   A So I'm just going to circle the ones -- out
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58 (Pages 226 to 229)

Page 230 Page 232 here in the side or do you want me to circle the 1 MR. LEWIS: All right. 2 2 MR. BERNICK: When he says there's a 3 Q You can circle the numbers is fine. 3 different presentation because of thickness, who is 4 4 he referring to? A All right. 5 5 Q As long as the name is right. MR. LEWIS: Right. A May I ask a question? Q (By Mr. Bernick) Got it? 6 6 7 7 A Well, the only problem is as I mentioned to Q Sure. you before -- yeah, I do have that. The only problem 8 A Since the criteria is three millimeters, 9 shall I circle everything that's under three? 9 is that I don't know whether there's any crossover in 10 Q No, no, no, no. We're not -- I'm glad 10 people that actually presented -- just by looking at you put that -- the question is very simple. You say that, presented with interstitial disease or may have 11 11 that the people in Libby present differently with 12 it now and that's why I'm wondering whether I should 12 13 severe diffuse pleural thickening because the pleura 13 eliminate some of these. That's what I was trying to are not as thick as what would be observed outside. 14 tell you a minute ago. 14 Q Why don't you put down a key in your own 15 Whoever it is that's picked up in that 15 difference in your mind is the basis for your 16 words at the top right-hand portion of the first page 16 opinion, you circle, and then we'll get into further of Exhibit-15 and say -- just say circle equals. 17 17 18 questioning. 18 A Okay. 19 A All right. I'm only going to mark these 19 Q Say circle equals -names. I'm not quite sure how to do this exactly 20 A I'll just say thin pleural thickening. It 20 because I'm only going to mark the names if they have 21 doesn't say anything about interstitial disease. 21 minimal or no interstitial disease. Fair enough? 22 22 Okav? 23 Q If that's what you --23 Q So the circle -- so the record is clear, the 24 MR. LEWIS: Just -- just -- Doctor, you 24 circled people that you've now put on -15 are those people that you say present differently with severe 25 need to just answer the question that the attorney Page 231 Page 233 diffuse pleural thickening because their pleura is has asked. 1 2 2 thinner than what is reported in the literature; is THE WITNESS: Well, he's --3 MR. LEWIS: He hasn't asked anything that fair? about interstitial disease as far as I know. 4 4 A That's fair except that the one problem with 5 THE WITNESS: No, but he's asking for 5 this is if they do have significant interstitial circling of ones that presented with just pleural -disease, they may have presented with that and that 6 6 thin pleural thickening and I don't want to then mark may be a major factor in that the pleural thickening 7 7 somebody that meets their criteria that has severe --8 is not necessarily the biggest factor. 9 might have interstitial disease. Is that right or 9 Q So now put -- next to the people who you 10 10 not? think may be presenting with significant interstitial disease as those circled people who may have 11 MR. LEWIS: Well, that's not what he 11 significant interstitial disease, just put a check 12 asked as I understand, but do the best you can. 12 13 13

THE WITNESS: All right.

Q (By Mr. Bernick) I asked you for difference of presentation, diffuse pleural thickness. That's what I'm assuming you're marking.

A And that's why I said that I didn't want to mark the ones that had --

Q I understand.

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A -- interstitial --

MR. LEWIS: Well, I think he -- is the question regardless of interstitial disease or -- I think that's the confusion.

MR. BERNICK: The question is the same question that I started out with.

next to those boxes.

A All right. That's what I was getting at before.

Q Okav.

17 A So I'm only going to check 1/1s or more or 18 what do you want? 2/1s? You want the criteria 19 for --

20 Q Well, whatever you would think to be the 21 appropriate measure of there being some significant 22 interstitial disease. I think that -- whatever you 23 would use.

24 A All right. If I can just get these lines at 25 the bottom to match up. I'll make that clearer. Oh,

59 (Pages 230 to 233)

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Page 234 Page 236 Q If you notice on the TDP, significant wait a minute. That's the wrong one. Damn it. 1 2 Q You can scratch it off. interstitial disease all requires -- all it requires 3 A It's hard to see across here even though 3 is 1/0. there's a crosshatch area in here. 4 A Well, then, if you want me to use -- is that 4 5 all or is there 1/1? 5 Q I've noticed. A That's this one here. Here we go. Oh, I Q No, no, for the TDP that qualifies having 6 6 7 interstitial disease, it's 1/0. 7 guess that's the best I can tell. 8 A All right. I'll do 1/0s then. 8 Q Okay. So --9 9 A That check is equal to IF -- equal to 1/2 or MR. BERNICK: Is that right? 10 greater. I think that's what I've got. 10 MR. FINCH: It's for everything but the Q 1 what? 11 11 most severe category, yeah. A 1/2. MR. LEWIS: The severe category is 2/1, 12 12 13 Q 1/2? 13 right? 14 A Well, 1/2, ILO 1/2. We've got 1/1s. 14 MR. BERNICK: That's the most severe. 15 Q I know, but --15 MR. FINCH: That's the most severe. A How significant do you want it? I guess 16 MR. BERNICK: Four is 1/0. 16 17 MR. FINCH: Category three is 1/0. 17 that's the --18 Q Well, I don't know. I mean the question --18 MR. BERNICK: Three is 1/0. 19 it's really up to you. This is --19 A God, whether this is right or not, who knows. A Are we --20 I'm sure you'll sort it out. Well, let you figure 20 21 Q This is all by way of comparison, 21 that one out. Dr. Whitehouse. We want to know people who present 22 Q (By Mr. Bernick) I'm not sure -- you make 22 at Libby differently from people who present outside 23 23 sure your key is -- go back one --24 of Libby. 24 A I left the key as 1/0. A All right. 25 Q Okay. So now you tell us on the record on 25 Page 237 Page 235 Q Because you're saying that they present 1 Exhibit-15 -- I haven't even looked at what you've differently at Libby because they have thinner pleura marked off. You tell us what you have done with Exhibit-15 in order to elucidate the different and they're still impaired, and what you said is that there's a complication in those cases where people presentation of diffuse pleural thickening, severe 4 4 5 have interstitial disease as well, correct? 5 diffuse pleural thickening at Libby versus outside of 6 A Yeah, and I'm going to check the -- I'm going 6 Libby. to check the ones that I consider to be significant 7 7 A Well, I've got seven or eight. Is that an disease, but most of these are 1/0s or 0/1s. eighth one? Yes, I have eight people here. 8 9 Q Right. So --9 Q And those eight people are noted or marked --10 A Out of the mortality study that have thin 10 A And I hope I don't miss any because it's conceivable I might miss one. pleural thickening and ILOs 1/0 or less. 11 11 Q So what are -- you've got circled the ones Q 1/0 or less? 12 12 that have the thin membranes --13 13 A Yeah. 14 A Yeah. 14 Q So you would say that anybody --15 Q -- thin pleura, and you're now putting a 15 A Wait a minute. 1/0 or greater I checked and check mark next to those of them that also have then the ones that are less than that are 0/1 or less interstitial disease? are the ones that are -- they're not checked and 17 17 there's -- let's see. One, two, three, four, five, 18 A Right. 18 six, seven -- eight of them. 19 Q Okay. And what's your criteria for 19 Q Okay. So there are eight people that you've interstitial --20 20 A Well, I'm just using 1/2, but I would use 1/1 marked with plan circles on Exhibit-15? 21 21 22 if that's what you prefer. 22 A Mm-hm. (Answers affirmatively.)

60 (Pages 234 to 237)

Q And they represent people who illustrate or

the basis for your saying that diffuse -- severe

diffuse pleural thickening at Libby presents

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Q Well, whatever it is that you think is the

marker of significant interstitial disease.

A Well, I think the marker --

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differently from outside of Libby in that the 2 membranes or the pleura are thinner, fair?

- A That's -- that's part of it, but, yes.
- Q Okay. Now, the other difference that you've pointed to in presentation is that people at Libby with severe diffuse pleural thickening with less exposure history?
  - A Yes.

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- Q Could you please mark -- is the basis for that difference, again, your observations with respect to the 79 people in the CARD mortality study?
- A Well, you know, community members would be the most likely situation, but that's a little hard to do without actually having the chart.
- Q Okay. Well, I'm just asking you the second -- the second difference that you pointed out which has to do with exposure, is the source of that difference, the opinion about that difference your 79 people in the CARD study?
- A Mm-hm. (Answers affirmatively.)
- Q You have to respond orally. 21
- 22
- 23 Q And can you identify those people using
- 24 Exhibit-15 or not?
- A Well, I can -- I can demonstrate all the ones 25

Page 238 Page 240 and then I'll put a star next to those or an X next

to them if they have severe disease. Is that what you want me to do?

- 4 Q Yeah, I want only the ones that you say have diffuse -- severe diffuse -- severe diffuse pleural thickening with low exposure. Are you with me?
  - A I'm with you.
- 8 Q Okay.
- 9 A Where shall I put the X here? That will work, right there. Okay? It looks like we've got 10 about another -- it looks like there's no crossover 11 12 here. One, two, three, four, five, six, seven, 13 eight, nine, ten -- eleven of them that are community 14 exposure.
- 15 Q So wait. So what you've now done is defined the people with community exposures, right? 16
  - A Mm-hm, mm-hm.
- 18 Q But are these people now with community 19 exposure and severe diffuse pleural thickening?
  - A As best I can tell, yeah, from the numbers that I have here.
    - Q Okay. And do they also have -- do they
- 23 have -- do they not have interstitial disease?
- 24 A Well, I'd have to go back and look at it 25
  - again then because I don't know which ones do have

Page 239

- that had only community exposure. Okay? Which is going to be the ones with low exposure. 2
- 3 Q Okay. Well, then put an E next to those.
- A Why don't I just circle the C? 4
- 5 Q I'm sorry?
- 6 A Want me to circle the Cs?
- 7 Q Circle the Cs?
- 8 A Where it says exposure.
- 9 Q Where it says exposure? Oh, I see, yeah.
  - A I just circled where it had C on them --
- 11 Q Well, whatever --
- 12 A -- but not the family member ones because there are some that are a question of whether it's a 13 family member or not.
- 14 15
  - Q Okay. So before you do that, let's just think this thing through so we've got a question and answer and we don't do it more than once,
- 18 Dr. Whitehouse. 19
  - I want people who are presenting with severe diffuse pleural thickening, severe diffuse pleural thickening --
- 22 A Okay.
- 23 Q -- with what you say is a lower exposure than what has been reported in the literature. 24
- 25 A Okay. So I'll circle the ones that are Cs

the interstitial disease.

- 2 Q Well, then check that out because I want people, again, who have diffuse -- severe diffuse pleural thickening with the impairment and the 4 differences that they have low exposure because that's what you said your second difference was.
  - A Where is the interstitial disease?
    - MR. FINCH: On the third page.
- 9 A Oh, here it is. Well, I don't know what 10 kind of -- we'll use a star.
- Q (By Mr. Bernick) A star is going to 11 represent what? 12
- 13 A Interstitial disease.
- 14 Q Okay.
- 15 Okay. I think that's it.
- 16 Q Okay. So what have you now marked off?
- 17 A Eight of those. How many do we have all
- altogether did I say? Doesn't seem to be much 18
- crossover between the extensive pleural thickening 19
- and any interstitial fibrosis, a couple down here, 20
- and then all the rest of them had extensive disease. 21
- 22 but did not have interstitial disease.
- 23 Q Let me see -15 now, sir.
- 24 A (Document passed.)
- 25 Q If I can make --

61 (Pages 238 to 241)

Page 241

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Page 242

- A There's the rest of the sheets, if you want 1 2 to have it.
  - Q Okay. So you've marked off with a circle on Exhibit-15 those who have thin pleural thickening, and by that, you mean those who you believe have severe diffuse pleural thickening, but with a thinner pleura than what's reported in the literature?
  - A Yeah, well, they died. Those are ones that died of their disease so we can assume that it was severe from that sheet there.
    - O Oh.

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- A Because I don't have all the rest of the other data here, you know, at this point, but if they died and are on that sheet, they died essentially of asbestos disease, and so if the only thing that's marked is thin pleural thickening on there, that was
- Q Okay. So what if their lung function was not -- was not below normal?
- A That's very possible. It probably was not. It was -- probably was below normal for most of those, I would think, or it was people that had lost a tremendous amount of lung function.
  - Q Well, but this affects things. Is there anybody that you've identified --

Page 244

- is, you've circled them because they died, but which ones of them actually had, before they died, a loss
- of lung function?
  - A Let me -- let me -- it's on here.
  - Q I know.
- A But it's a wrong -- it's very hard to read.
- 7 Let me have these sheets. I thought you had the ones
- that were all taped together. It had colors on it so
- 9 that they could be easier to --
- 10 Q Okay. So what I want -- here, I'll make it 11 even --
- 12 A Well, there's a problem. There is a problem 13 here, a little bit.
- 14 Q Yeah.

15 MR. FINCH: David? 16

MR. BERNICK: What?

A No, wait a minute. I guess I've got the data 17 18 and I thought --

> MR. LEWIS: No, I think you got it. THE WITNESS: Yeah, I got it.

21 Q (By Mr. Bernick) So I want: Of those people

- 22 with those thin membranes and without the diffuse --23 without the fibrosis, pure -- just the -- not pure.
- 24 Those people who had severe diffuse pleural
- 25
  - thickening, I want to know and I want you to

Page 243

- anybody that you've identified that's -- now, taking
- a look at Exhibit-15, try to round out these 2
- differences because I now understand more of where
- you're coming from, but you've identified a
- difference in the presentation at Libby that people
- with severe diffuse pleural thickening present 6
- 7 differently from those in the literature because
- their pleura are thinner, right? 8
- 9 A Mm-hm, at the time of death.
- Q All right. And you've -- you've indicated 10 who they are on Exhibit-15 by putting in a zero. 11
- 12 You've also though put a check mark next to those of
- that group who had interstitial involvement, right? 13 14
  - A Yeah.

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- Q So if we wanted to focus purely on those who had diffuse pleural thickening and not on those who also had interstitial fibrosis, we would take a look at the zeros that did not have a check mark, correct?
- A Correct, mm-hm.
- 20 Q And as I look at it, that would be number 2, number 6, number 14, 15, number 38, number 51 and 52, 21 and number 69, right? 22
- 23 A Correct.
- 24 Q Now, of those people, which ones of them
- actually had a recorded loss of lung function, that 25

yellow-highlight the number of those who had a below normal lung function at the time of death.

- A Okay. I don't know if I can see that. I'm 4 color blind, by the way. This is enough to challenge 5 vour vision.
  - Q Which ones have you highlighted?
  - A Every one of them.
- 8 Q That has below normal lung function at the 9 time of death?
- 10 A Every one so far. I think they're all going to be, I suspect, but we'll see in a minute, won't 11 we? Now, wait a minute. Every one. 12
  - Q Every one of the ones that you marked as having thin membranes, thin pleura had below normal lung function at the time of death?
    - A Yeah, every one of them.
- 17 Q And as a measure, what did you use as the measure of below normal lung function? 18
  - A Well, basically, I was using 80 percent, but actually, I could just as soon use --
  - Q 80 percent of what?
- A 80 percent of predicted, but I could just use 22
- lower than that because I don't think there was 23
- 24 anything --
- 25 Q 80 percent of predicted for what number?

62 (Pages 242 to 245)

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Page 245

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Page 246 A I was using, basically, FVCs or DLCOs.

Q Okay. Now, FVC or DLCO less than 80?

- A Yeah. We have a lot of DLCOs in here in the 40 range, 30 and 40 range.
- Q Now, with respect to all those people that you have yellow-highlighted, which ones of them were smokers?
- A I don't -- I don't know if I have that on here. Do I? I don't think so.
  - Q Well, wouldn't you want to know that?
- A Oh, here we are. Yeah, I guess we do have that on this one. We did put that on this one. Well, let's see. Why don't you score this yourself?
- 13 Active smokers, now there's one, two... (Pause.) 14
  - Q I want active or former smokers.
- A Well, there's a bunch of them that guit a 16 long time -- actually, a long time ago. 17
- 18 Q You don't necessarily know when they quit 19 from this, do you?
- 20 A Oh, I know their pack years and their age, so it probably was a long time ago. 21
- Q But you don't really know that either? 22
- 23 A No, I don't.

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24 Q Let me just ask you: Are there any people 25 that you've highlighted in yellow, that is, having

Q And have you also done that on Exhibit-15? Just hand that over here.

Page 248

Page 249

- 3 A Oh, okay. Yeah, the key is down here on the 4 bottom.
- 5 Q So in order to indicate those people who are different because they had community exposures and 6 still had severe diffuse pleural thickening, you've 7 indicated those with the exposures -- low exposures 8 9 with a C. With an X, those who had extensive --
  - A Pleural thickening.
  - Q -- pleural thickening and then a star if they had interstitial involvement. So to figure out which ones of them are the evidence of your second difference, which is low exposure, you'd look for people who have a C and X and no star, correct?
    - A Yeah.
- 17 Q And of those C, X, no star, we have seven --18 Baker is 7. We have Cole, 15, and Cole, 16. We have Fehrs, 30. Yeah, C, X -- C, X -- I'm sorry. That's 19 20 not Fehrs. That's Erickson, 29. We have Hammer, 37. We have Kujawa, 47. And we have Lundstrom, 49. 21
- Shockley, 65. And Thompson, 70. Right? 22
- 23 A Yeah, I wasn't looking at the names.
- 24 Q Now, of those people, which ones of them actually had below normal lung function before death?

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Page 247

thin pleural tissue and severe diffuse pleural thickening who had no smoking history?

- A I've got one here. I think one and then I've got one with a pipe. I don't know if that's going to count or not. I think that's all I've got. Most of them guit. They have a Q by them.
- Q Just so we're clear, all the people that you've pointed to as evidence that in Libby there's a different presentation of diffuse -- severe diffuse pleural thickening because of the thinness of the pleura, you've marked off those people. You've also indicated which ones of them do not have -- or do not have interstitial involvement.
  - A Mm-hm. (Answers affirmatively.)
- Q And of all those people who had those thin 15 pleura, only one of them was a never smoker, correct? 16
  - A Correct.
  - Q Okay. If we now go to the community exposures --
    - A Mm-hm. (Answers affirmatively.)
  - Q -- that's people that you say presented with severe diffuse pleural thickening with lower than expected exposures. Have you also then indicated which ones of them did not have interstitial disease?
    - A Yeah, I have.

1 A Well, then you have to give that back to me 2 again and I could tell you, probably.

- Q Okay. And mark those up with yellow.
- A I'm mark it through their C here. 4
  - Q These are C, X, no stars, right?
- 6 A Yeah.

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- Q C, X, no stars with below normal lung function at the time of death.
  - A No X, so we won't do that one.
- 10 Q C, X, no star, plus below normal lung 11 function.
- 12 A Mm-hm. (Answers affirmatively.) Oh, it 13 looks like they're all going to be in yellow. I hope 14 you can see the yellow because I can't. All of these 15 are low -- you can sort out which ones have excess.
  - Q And of this group, how many of them were never smokers?
- 18 A Were never smokers?
  - Q Yeah.
- 20 A I'll look it up. There's one, two, three -three, four, five -- five. 21
- 22 O Five.
- 23 So if we take these first two differences
- 24 that you've identified in presentation, that is,
- thinness of plural tissue and low exposure and you 25

63 (Pages 246 to 249)

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Page 250 indicate -- you separate out those that had 2 interstitial involvement and you looked to people who had below normal lung function at the time of death, 3 there are a total of five people who were never 4 5 smokers? A Probably. That may be. 6 7 Q Well, that's what you've indicated, right? A Yeah, whatever I told you. 8 9 Q Now, if they're people who have smoking history, they're going to have -- smoking causes both 10 restrictive impairment and obstructive impairment of 11

lung function, correct? A No, they cause diseases that may give you obstructive disease, but in their own right, they do not. Only about eight to ten percent of people that are smokers get significant lung disease from their

smoking, so --17 18

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Q I'm sorry. Who --

A -- no, I would not agree with you at all about --

Q Well, people who -- I'm sorry. People who are current or former smokers, those who do suffer affects from the smoking with loss of lung function, that is, principally obstructive lung function, correct?

1 A I believe you do.

Q -- in their entirety for all the 79?

A I believe you do, as far as I know. I mean, I wasn't in charge of getting them to you, but I think you have them all.

Q No, because the 79 includes people who are not your patients, right?

A Oh, you should have a redacted file for that.

Page 252

Q No, we don't. No, we don't.

MR. LEWIS: Yes, you do.

Q (By Mr. Bernick) We have x-rays. We do not have redacted files. The redaction wasn't done. Redaction -- there's an objection that it'll be costly to do the redaction, but we don't have the redacted files.

MR. LEWIS: I think you do have the redacted ones for the study. That's what I -- I honestly believe that. I could check on that.

MR. BERNICK: I don't believe so.

MR. LEWIS: I think you do.

Q (By Mr. Bernick) In any event, if we wanted to see what the impact of smoking was within the 79, it would be best to have the medical files, correct?

A Yeah, it would be, but you'd also need to make sure that when you're dealing -- and if you see

Page 251

A Yes, if they -- if they develop emphysema, 1 yes, that's the case. 3

Q Okay. Now, how many of the people that you've identified in your first category, which is the thinner pleura, had obstructive lung function from smoking? Can we figure that out?

A That is going to be very difficult to figure out off of this.

Q What would we need in order to figure that out?

A Tables and continuity, actually, so that you could actually look at them. This is pretty hard to see anything on this thing.

Q Well, would it be best to actually figure out -- if we wanted to know these two differences and what effect, if any, smoking had on the people with these two presentational differences, thin pleura and shorter exposure history, if we really wanted to know what the impact of smoking was, wouldn't we need their medical files?

A Probably would, yeah.

22 Q And do we have the medical files for all the

23 79?

24 A Yes, you do.

25 Q We have all the medical files --

Page 253 1 an obstructive defect, whether it's an obstructive 2 defect due to asbestos disease or whether it's

related to smoking --

Q Okay.

A -- and emphysema.

(Exhibit-16 marked for identification.)

Q (By Mr. Bernick) Now, I want to move quickly through the rest of the questions that I have. This is very helpful and I appreciate your taking the time to do it.

I'm going to give you Exhibit-16. Exhibit-16 is the same thing. I now want to talk about the two other points of distinction that you identified for people at Libby.

One point -- further point of distinction was, you said, the rapidity of progression?

A Yes.

Q The second was progression to death, correct?

20 A Yes.

Q And I take it that with respect to

22 non-malignant disease, your evidence to support both

of those points comes again from the CARD mortality 23 24 data, correct?

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A Well, the progression comes from other

64 (Pages 250 to 253)

Page 254 Page 256 places, if that's what you're talking about, you Q Is the answer to that yes? 1 2 know, the rapid progression of it. 2 A Yes. Q Okay. Let's talk about rapid progression 3 Q And how many of the people in the CARD 3 4 first. 4 mortality data set are people who progressed to death 5 5 from severe diffuse pleural thickening? How many? A Okay. Q Your evidence of rapid progression at Libby A From severe diffuse pleural thickening? 6 6 that's different from elsewhere, the source of that Q Yes, all I'm focused on is severe diffuse 7 7 data -- that data source is what? 8 pleural thickening. 8 9 A You have it. You have a list of names of 9 A Well, we had the low exposure ones that you 10 already know about when the death was --10 people and you have the x-rays for them of people that have had rapid progression of their disease over Q This is why, Dr. Whitehouse, it's so critical 11 a short period of time. It's something that's been that we peel off these questions one at a time. 12 12 working and I've worked on to prepare for a paper, 13 We've been through people with the different 14 but it isn't -- it isn't ready to be published yet, 14 presentations, that is, thinner pleura and low but you have the pulmonary function numbers on those exposure. I now want to know the people whose cases 15 15 people and you have the x-rays and you have the names you relied upon for your opinions about rapidity of 16 16 and only two of them are not clients and they're in 17 progression. 17 A Okay. You have that. It was in -- it was in 18 the -- they're initialed in that list. 18 19 Now, I don't know where it is, but I know you 19 my expert report and you have a copy of that in your expert report that has the pulmonary functions on 20 do have that. 20 eighteen people and you have a CD somewhere that has 21 Q Just -- you're ahead of me. 21 all the x-rays of those people, the serial x-rays. 22 A Yeah. 22 There it is, right there. He's got it. And there's 23 Q For your opinion that says that there's more 23 24 rapid progression at Libby --24 another page that shows the pulmonary function. 25 A Yes. 25 Q Okay. Now, this is -- I'm working with Page 257 Page 255 Q -- the source of that opinion is data with 1 1 Exhibit-6 -- Exhibit-6 to Dr. Whitehouse's May 2009 respect to which people? Which people? 2 2 report; is that right, Dr. Whitehouse? 3 A Those are the ones I was just telling you 3 MR. LEWIS: Which is exhibit -- is it about, the eighteen. That's part of it. That's the Exhibit-1 to this deposition? 4 4 MR. BERNICK: Yes. eighteen that are a study population of people that 5 5 have rapidly progressed that we have documentation of MR. FINCH: Yes. 6 Q (By Mr. Bernick) Okay. So if we go to that, 7 it, both radiographically and with pulmonary 7 these are Exhibit-6 to your May report, '09 report, 8 functions. 8 9 We actually have some more of them that -- a 9 are the people who you believe have got rapid number of other ones that I decided I wasn't going to 10 progression that's distinctive to Libby from 10 diffuse -- severe diffuse plural thickening; is that 11 use for the study because I didn't like the quality 11 of the x-rays or something else. I had to have correct? 12 12 13 13 A And I've actually been told that this is

something that I could document easily.

Q Again, we're not communicating. Let me take this a step back.

I know about the paper that was published in 16 2004. 17

- A This is not published.
- Q Okay. So let's begin and talk about data 19 20 that you have on progression. There's the paper in 2004, right? 21
- 22 A Yes.

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- 23 Q You then have people who are in the CARD mortality data set? 24
- 25 A Mm-hm. (Answers affirmatively.)

Q -- on rapidity of progression; is that right?

that accurate, this is the basis for your opinion --

I just want to know what your data was. Is

22 A That's part of it, yes.

A Yes.

A -- to do that.

Q I didn't ask you that.

Q I didn't ask you that.

Q Okay. This data set, who are these people? 23

really unusual by the people at Mount Sinai --

- How do we get from case number here --24
- 25 A Let me show you.

65 (Pages 254 to 257)

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Page 258 Page 260 Q -- to your spreadsheet? Are they all --1 1 Q (By Mr. Bernick) But the question is -- but A This one -- they're not on this spreadsheet. 2 the question is -- I know that these are people that 3 Q Okay. So -you saw, but why is it you say that these particular 4 A These people are alive. 4 people who are listed in Exhibit-6 to your May report 5 Q Okay. So Exhibit-6 to your May report are show rapidity of progression from diffuse pleural 5 people who are all alive? thickening? 6 6 7 A Yes. 7 A Let me have the sheet here for a second. 8 8 Q And they show rapidity of progression? Q I don't want interstitial stuff. I want --9 A Yeah, and now if you turn the page over, 9 A No. you'll see the names of them. 10 10 -- just your diffuse pleural thickening. Q You'll see the names are on the back of the A Oh, I think there's one interstitial in here 11 11 probably, but most of it's -- maybe two. Oh, they 12 paper? 12 did it on this -- it makes it a little harder to 13 A And the initials. 13 14 Q And the --14 read. They put the before, see, on one page, and the 15 A No, the next page down there. 15 after on the next page. Q Oh, it's the next page. It's the names and 16 MR. FINCH: Which one? 16 MR. BERNICK: It's his report. Has his 17 17 initials? 18 A Yeah. 18 report been marked as an --19 Q Fair enough. 19 MR. FINCH: Yeah, it's Exhibit-1. 20 And these are different from the people who 20 Q (By Mr. Bernick) It's Exhibit-1. are on -- who were part of the mortality study? 21 A Yeah. 21 A That's right. 22 Q Okay. So can we just get that? That will 22 save us a lot of time. In your stack of exhibits, 23 Q Okay. Is there any other data set that you 23 24 rely upon for your opinions regarding rapidity of 24 see if you have Exhibit-1. progression? 25 MR. LEWIS: I'll help you. 25 Page 259 Page 261 A No, only my personal experience. 1 1 MR. BERNICK: Thank you very much. I 2 Q Okay. Now, the rapidity of progression that 2 appreciate that. 3 we see here on Exhibit-6 to your May report, what was Q (By Mr. Bernick) So we'll go to Exhibit-1 the criteria for inclusion of these people, that is, and we'll go to tab six, and I want you to identify, 4 4 how did you pick these people out? 5 if you can, the people in this collection who do not 5 A I haven't worked on this for a while, so I'm 6

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trying to remember exactly what -- what I decided. It was something like about a twenty percent drop in lung function over a period of less than two years, I think, as I recall, two years. Maybe four years. I think maybe it is four years.

Q Are there documents that would enable you to -- enable us to see what the basis was for your saying that there was rapid progression in these people?

A Turn the page over and look at the pulmonary functions and you can see what happened to the pulmonary functions and the dates are on there and all.

Q But what I want to know is -- what I want to know is why you picked these people.

A Oh, those are people that I saw in the clinic and that Dr. Black saw and made me aware of and so that's how they wound up in that.

MR. FINCH: Use this copy.

have interstitial involvement, that is, who were just severe diffuse pleural thickening.

A Well, they'll tell you. It's number three and it's number thirteen.

Q Number three and number thirteen?

11 A And number five. And number five has some 12 interstitial disease too.

Q Okay. So in the list on Exhibit-6, the ones with -- that are -- that have severe diffuse pleural thickening without --

A I didn't say these had diffuse severe pleural thickening.

Q That's all I want. I just want to know only about severe diffuse pleural thickening because that's the category I'm focused on in the TDP. I want to know those people in your list you had that

22 you think is unusually rapid progression from severe

23 diffuse pleural thickening.

24 MR. LEWIS: I think -- I think --

25 forgive me, Counsel, but I think that's not the

66 (Pages 258 to 261)

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purpose of this chart. I think we're just talking about progression here as -- and not defining in terms of severity.

MR. BERNICK: I understand that. That's why I want to know because the criticism is lodged with respect to that TDP category. I'm focused -- all my stuff is focused on that category.

- Q (By Mr. Bernick) So I need to know -- when you say that there's been more rapid progression from severe diffuse pleural thickening, I need to know whose cases you're pointing to.
- A I can't identify them individually. There's no way to do it from what I have here. There's no way to identify them.
  - Q What do you --

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- A I have a pretty good idea that they're all severe and they were all severe at the end of their -- I can tell you which ones I know for sure are severe as far as their pleural disease because I took -- as you mentioned, there's a couple of interstitial ones in here and I won't discuss those.
- Q Well, what I need -- I don't want to have to just rely on your memory, Dr. Whitehouse, because I know you wouldn't want to rely upon that either.
  - A Well --

1 interstitial disease except for three. Number three

I know doesn't have much pleural disease.

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Page 265

- Q Okay. And then what would we look for in the charts? What in the charts did you look to in order to say that they had more rapid progression of diffuse -- severe diffuse pleural thickening of what's reported in the literature?
- A Well, the first thing I looked at -- the first thing I looked at was their pulmonary functions which is -- tells you a world of information if you look at those because most of them dropped by 50 percent over a period of a couple years, and then you look at the x-rays and see what happened in their x-rays.
- Q But what was the criteria for your saying that it was more rapid than what appeared in the literature?
- A I think I'd have to look at the draft of the paper. I don't have it with me and I'm sure you don't have it either and it is, indeed, a draft, but I think it was -- and I haven't -- and the reason I don't remember it is because I haven't really looked at this for six months and I haven't had time to, but I think it's -- I think it was either a 20 or 30 percent drop in the FVC or DLCO over a period of

Page 263

- Q But if we wanted to know those people who had severe diffuse pleural thickening at Libby that you say are distinctive because of rapidity of progression, where would we go to find out who they are and the basis for that?
- A Who they are is here, and I guess you could go to your other sheet, if they're on the mortality study, but most of these are not. There's only one that I know of, maybe two, on that mortality study. You have to go to the charts.
  - Q Have to go to their charts?
- A Mm-hm. (Answers affirmatively.)
  - Q But which charts do we have to go to? The people that --
- A All of them -- all of them except the ones that have interstitial disease, look at them.
- Q As the charts -- so we would go to the charts of people who are listed in Exhibit- -- tab six to Exhibit-1 of this deposition, we would go there?
  - A Right.
- Q And then we would look for the individual charts of those people who are listed other than the ones with interstitial disease, and what would we look for?
  - A I think you should look at the ones with

1 about three to four years.

- 2 Q Three to four years?
  - A Yeah, that's considered rapid in asbestos.
- 4 Q And so I want to be able to -- again, I want
- 5 to be able to rely upon this so that if you say
- 6 something, we'll hold you to it when you testify in
- 7 September.
  - A Well --
  - Q We'll hold you --
  - A -- take a look at the numbers.
- 11 Q Well, I don't want to -- I don't want to take
- 12 a look at the numbers. I want to know your expert --
- 13 what you did by way of an expert analysis. I want to
- 14 be able to say we talked to you back in June of this
- 15 year -- when you testify in September, I want to say
- 16 you told us back in June, Dr. Whitehouse, that
- you told us back in Julie, Dr. Writteriouse, triat
- 17 rapidity of progression that was different at Libby
- 18 was determined by X and we've now gone out and tested
- 19 it, so I need to have you to be able to tell us, if
- 20 you can, what the criteria was or what the fact was
- 21 that you observed in these people such that you said
- 22 there was more rapid progression from diffuse pleural
- 23 thickening than what's reported in the literature.
- 24 A I'll have -- you know, there's one that was
- 25 radiographic. The rest of them are both radiographic

67 (Pages 262 to 265)

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Page 266 and pulmonary function and I'll have to look it up and I'll get it to you. There's no way I can remember it now and I'm not even going to try.

- Q See, I can't deal with that. I'm taking your deposition today.
- A Well, I can't give it to you because I don't remember. Okay?
  - Q Okay.

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- A And you'll have to live with that.
- Q But how do you know -- well, actually, let me just ask you: What do you think -- let's go back over this for a second. We talked about the difference in the thickness of the pleura, right?
  - A Mm-hm. (Answers affirmatively.)
- Q And you said you think that the people at Libby present differently with diffuse pleural thickening because they have severe impairment with -- even though their pleura tissue is thinner than what's reported in the literature.

When you made that comparison, what did you assume the thickness was that was reported in the literature for people outside of Libby?

- A No, I was -- I was using for comparison the plan's three millimeter.
  - Q Oh, you mean the TDP?

Page 268

- 1 the thickness of the tissue from how it is has been reported, the thickness that's been reported outside
- of Libby in the scientific literature? 3
  - A I haven't -- I doubt it's any significant difference because it's -- I think it's more a matter of degree or more the matter of frequency than it is
- the amount of degree. I'm sure you can find the same thing in -- outside of Libby in people if you look 8
- 9 for it. That's all.
  - Q Okay. Now, have you done the scientific analysis to say, I've measured and determined that the frequency of thinner pleura in Libby people is
- 13 greater than the frequency reported in the
- 14 literature? Have you done that?
  - A No.
- 16 Q What about when it comes to low exposure? 17 Low exposure has been reported. We know low exposure 18 has been reported as a source of diffuse pleural 19 thickening outside of Libby, correct?
  - A Yes.
- 21 Q Do you know that the -- have you actually 22 scientifically determined that the frequency of
- reporting of severe diffuse pleural thickening at 23
- 24 Libby is actually higher than the frequency of
- 25 reporting of diffuse pleural thickening with low

Page 267

- A Yeah, the TDP is three millimeters is what I was using.
  - Q Well, what if we set the TDP to one side and simply said, Dr. Whitehouse, I want to know whether you've determined based upon scientific study that there's a difference in the presentation of diffuse
- pleural thickening at Libby versus elsewhere. Forget about the TDP. I just want to know whether you've determined that the presentation is different than
- 9 10 Libby elsewhere. Could you tell me that what you've
- seen in Libby in terms of the thickness of the pleura 11
- on presentation or severe diffuse pleural thickening 12
- 13 is different from that same feature reported in the 14 literature?
- 15
  - A Yes, much more frequent.
- 16 Q Not frequent.
- A Hey, that counts for a whole lot. 17
- 18 Q I'm not --
- 19 A You have to look at it that way.
- 20 Q No, no, no, no, no, no. I just want -- I 21 want you to tease out here -- very important -- how 22 it looks.
- 23 Do you know -- do you know based upon scientific data that the presentation of diffuse 24 25 pleural thickening at Libby is different in terms of

exposure outside of Libby? Have you determined that 1 2 scientifically?

- A No, it hasn't been reported yet.
- Q It hasn't? 4
  - A It hasn't been reported.
- Q When it comes to the frequency of blunting of 6 7 costophrenic angle, Libby versus outside of Libby, have you determined scientifically that the rate of 9 reporting outside of Libby is different?
- 10 A Well, the literature indicates that -- not the literature, but the Amelia\* article, et al., says 11 that you shouldn't have diffuse pleural -- they call 12 it diffuse pleural thickening and it's --13
  - Q I know.
- 15 A But that's --
- 16 MR. LEWIS: Now you've got to let him 17 finish his answer.
- 18 MR. BERNICK: Come on. Come on, Tom. 19 MR. LEWIS: No. Wait. Wait. Wait.
- 20 MR. BERNICK: We've been getting along 21
  - fine.
- 22 MR. LEWIS: Wait. Wait. Wait.
- 23 MR. BERNICK: We've been getting along
- 24 just fine.
- 25 MR. LEWIS: That's because you were not

68 (Pages 266 to 269)

Page 269

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Page 270 interrupting his answers. Let him finish his answer 2 and then you can inquire.

Q (By Mr. Bernick) Go ahead, Dr. Whitehouse.

A The Amelia article indicates -- or Amelio\*, whatever it is, a Frenchman's article a couple of years ago indicates that you shouldn't call diffuse pleural thickening unless there's blunting of the angle. Okay? Well, we know clearly from our CT scans that we've got an awful lot of people with diffuse pleural thickening without blunted angles, and so it's contrary to what's reported in the literature.

Q You done?

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24 25 A Yeah, I'm done.

Q Now, I'm not -- my -- my question had nothing to do with the definition adopted by Dr. Amelia. Nothing. I'm totally focused on data.

Have you determined scientifically that the rate of reporting for severe diffuse pleural thickening at Libby without blunting of the costophrenic angle is different from the data that's reported in the literature outside of Libby?

- A Well, you know, we haven't reported it. We haven't had the opportunity to.
- Q No, but do you know that what you've seen at

1 MR. LEWIS: Objection.

MR. BERNICK: Just make your objection.

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I'm going to ask the question.

MR. LEWIS: I thought you were --

MR. BERNICK: Do you want to make the objection?

MR. LEWIS: I thought you were done. MR. BERNICK: Go make the objection. MR. LEWIS: No, I thought you were

finished with your question.

MR. BERNICK: No.

MR. LEWIS: All right. Go ahead and finish your question and then I'll make my objection.

Q (By Mr. Bernick) So I want to know whether you scientifically determined that the rate of reporting of severe diffuse pleural thickening at Libby without blunting is higher than the data shows for severe diffuse pleural thickening without blunting outside of Libby.

MR. LEWIS: Objection. Object to the form of the question. The question is clearly compound. It asks several questions.

23 Q (By Mr. Bernick) Go ahead.

24 A It's obvious if Amelia is reporting that there's no diffuse pleural thickening. You -- the 25

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Libby is different in frequency from what has been scientifically reported outside of Libby when it comes to blunting?

A Yes, I do know that, but on the other hand, you're -- every time I've tried to testify about things that I reported or I've seen in Libby relative to what's going on outside, you tell me you want to know if I've reported anything or seen scientific data, and what I'm telling you is these are my own observations.

Q Yeah, but we're -- we're -- we're communicating kind of, but not completely here. I just want to be totally clear, so that there's no

You've got data that you have at Libby. I've tried to unpack the data that you have at Libby. Some of it we've got, some of it we don't have, but we've had the opportunity to find out about some of it today, so I understand Libby.

I'm asking now about whether you know that the experience in Libby is, in fact, different from the experience outside of Libby, and in order to find out about that, I'm asking about how your Libby data compares to data reported in the scientific

powers that be have created a definition for diffuse 1 2 pleural thickening that excludes diffuse pleural

thickening unless the angle is blunted --

Q Which --

5 A -- and I'm telling you by all our

measurements, we've got about half of ours with 6 7 severe diffuse pleural thickening that don't have

blunting.

Q I understand.

A That's the answer to the question.

11 Q No, it's not.

12 A There's no other answer.

13 Q No, because all you've told me about is the 14 authorities on high and a definition in the Amelia paper. There are many papers that have been reported 15 that have been published on diffuse pleural 16

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thickening that have not required blunting of the costophrenic angle to include people in their 18

19 reports. That was a later development that took 20 place.

21 McCloud took place before that development. 22 Sargent\* took place before that development. There are a whole series of papers that were written before 23 24 people incorporated into the definition blunting of

25 the costophrenic angle.

69 (Pages 270 to 273)

literature outside of Libby.

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Page 274 1 So what I want to know is: Can you -- do you 2 have scientific data on the basis of which you could say the rate at which diffuse pleural thickening has 3 4 been found, severe, without blunting at Libby is 5 different from the rate that appears in the scientific literature outside of Libby for severe 6 7 diffuse pleural thickening without blunting? 8

MR. LEWIS: Well, objection. That assumes facts not in evidence.

A Let me answer the question first. Obviously, the ILO said that those doctors were wrong, that that wasn't diffuse pleural thickening. It can't be diffuse pleural thickening. There's no blunting, so they were obviously wrong. Amelia's right. We're right with -- with your plan here. No, that's -that's clearly the answer because when they changed the ILO standards and said you can't have diffuse pleural thickening without blunting, they basically said to the guys before them, you guys were wrong.

- Q (By Mr. Bernick) I don't --
- 21 A That's the answer to it.
- 22 Q Well, that may be your interpretation, but I 23 want to know data.
- 24 A I don't know what, if any, of that data is in 25 any of that. I don't know what it is. I'm not very

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- 1 Libby, do you know that that is -- do you know scientifically that that is unique to Libby?
  - A Well, you know, obviously, McCloud's report is chrysotile outside of Libby.
  - Q Outside Libby?
    - A Sure.
  - Q And so that would be consistent, that is, what he observed outside of Libby with respect to low
- 9 exposure is consistent with what you observed at
- 10 Libby with respect to low exposure, correct?
  - A Yes.
- 12 Q Okay. Now, when we talk about progression --13 when we talk about progression, you've got cases
- 14 involving progression that are in your report and
- 15 it's the eighteen in tab six of Exhibit-1 to this
- 16 deposition, and you've told us we've got to go back
- and take a look at the files, and if we have, we 17
- 18 will, but I want to know on the basis of what test
- 19 you can say that the rapid progression that you've
- observed at Libby for severe diffuse pleural 20
- thickening is different from the progression that's 21
- 22 been observed outside of Libby on the basis of what
- 23 test you say Libby is different from non-Libby.
- 24 A The rapidity of it. 25
  - Q Yeah, but measured how? I want to know what

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interested in it and I don't know what the data 2

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- Q What about --
- A -- what the percentage was. I know what 4 5 McCloud's was. It was about 45 percent.
- 6 Q Right, which is comparable to what you found, 7 right?
  - A Yeah, it is.
- 9 Q Okay.
- A But he basically was told, you're wrong, 10
- 11 because it's -- that's not the way it works. 12
  - Q So at least will you agree with me that the -- that you can say that with respect to McCloud, he found a comparable rate of severe diffuse pleural
- thickening without blunting is what you found in 15 Libby, correct? 16
- A Yes. 17
  - Q And do you have any reason to believe that -do you believe his data is wrong?
- 20 A No, I don't believe his data is wrong. I 21 think Amelia's data is probably wrong.
- 22 Q Okay. Now, when it comes to -- when it comes to exposure outside of Libby, would you say the same 23
- thing, that is, you found severe diffuse pleural 24
- 25 thickening associated with low -- low exposures at

- measurement you used to say that the rapidity of Libby is different from the rapidity outside of
- Libby. 3
- 4 A Well, the literature, not only in general,
- 5 but all the literature indicates it's a slow
- 6 progressive disease and all of it's directed towards
- that. And this sort of phenomenon, to my knowledge, 7
- 8 has not been reported in the literature.
  - Q Have you looked to see --
    - A Yes.
- 11 Q Have you looked --
- 12
- 13 Q -- for the data on progression of severe
- 14 diffuse pleural thickening outside of Libby? Have
- 15 you looked for it?
- A Well, first off, this -- I didn't say this 16 17 was serve disease. I didn't say this progressed to
- 18 severe pleural thickening. That was your term. 19
  - Q And that's pointing to Exhibit-6 of
- 20 Exhibit-1 --
  - A I didn't say that.
  - Q -- is that right?
- 23 A It's your term. You made that assumption. I
- 24 just said they rapidly progressed.
- 25 Q Okay. Well, then I will -- then I will

70 (Pages 274 to 277)

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clarify that too. 1

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THE VIDEOGRAPHER: Counsel, we need to switch out tapes.

MR. BERNICK: We're almost done.

THE VIDEOGRAPHER: We're going off the record. The time is now 3:19 p.m. This is the end of disk number three in the continuing deposition of Alan Whitehouse.

(Recess.)

THE VIDEOGRAPHER: We're back on the record. The time is now 3:24 p.m. This is the beginning of disk number four in the continuing deposition of Dr. Alan Whitehouse.

**EXAMINATION** (Continuing)

15 BY MR. BERNICK:

- Q So, Dr. Whitehouse, I think where we broke off I was asking about progression and then you clarified that tab six of Exhibit-1 is not necessarily progression to or associated with severe diffuse pleural thickening, fair?
  - A That's correct.
- Q And so where is your data that says that severe diffuse pleural thickening shows more rapid progression in Libby than what the literature reports outside of Libby?

1 order to be able to explain, fair?

> 2 A Well, yeah, clearly they -- they markedly increased their pleura disease associated with their 4 loss of lung function, at least all but one, and one 5 was purely interstitial. 6

Q So --

A But whether or not you would say when you look at them whether they'd gone from three to five millimeters or one to three or what, I can't -- I can't recall how many of them actually went to what you would call severe pleural disease.

Q So you can't say on the basis of this that they had a rapid -- a more rapid progression. This is really what I'm getting at. There are two issues. The first issue is what you actually say is reflected in tab six to Exhibit-1 by way of progression.

And what you've been able to tell us is that there's rapid progression, but you've not been able to tell us exactly the test that you used in saying that there's been rapid progression in these particular cases, fair?

22 A You're not talking about pulmonary function 23 tests here, you're talking about a test like the 24 radiographs or something?

Q No, I'm -- again, this is you, not me. This

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A You know, I don't think that I've actually said exactly that. What I've said is that we have people that have rapidly progressed their pleural disease which falls into this category here. Most of these people do have fairly severe disease or at least they did by the end of this. They had very bad disease and several of them have died from their pleural disease, so I guess you can draw that inference, although I haven't made a great issue out of that.

Also, some of the people in the mortality study were people in my practice that I followed for a while and then went ahead and got significantly worse over, you know, a relatively short period of time, although they were already very sick beforehand and went ahead and died, so I don't know that I have any data concerning that except that I know very well from -- this is probably the best data I have except that I don't have it real collated so I could show you all the radiographs and the pleural thickness and things yet.

Q So today if we focused on tab six to Exhibit-1, you say that these people reflect rapid progression, but exactly how and -- how they do that is something that you would need the patient files in

Page 281

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- is your opinions. You've said that tab six to
- 2 Exhibit-1 reflects progression and I have asked,
- well, with respect to severe diffuse pleural
- thickening, how does the data in tab six show a rapid 4
- 5 progression in diffuse -- severe diffuse pleural
- 6 thickening, and you said this is not focused
- 7 specifically on that question, right?
  - A That's right.
  - Q So I then said, well, what was the test,

10 how -- whatever you were doing with tab six, what was 11 your test of progression? And if you can answer that, that would be great. What was your test of 12

13 progression for the matters that are set forth in tab 14

six of Exhibit-1?

A Okay. Except for case ten, where I only have one set of pulmonary functions, but had a lot of x-rays from before, it was a combination of both the x-ray and the pulmonary function. The x-ray had shown progression of pulmonary -- of pleural disease and the pulmonary functions at the same time had shown a decline consistent with the kind of x-ray changes, I would say.

22 23 Q And exactly how you worked with those things 24 in each of these cases, we'd have to have a file in 25

order to explore that with you, fair?

71 (Pages 278 to 281)

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Page 282 A Yeah.

1 2 Q Okay.

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A If you have the file, I'll be happy to discuss it with you.

Q Okay.

A This is very clear cut when you look at the x-rays and the chart.

8 Q But you can't articulate it verbally as we 9 sit here?

A Exactly for each one, no, I can't.

Q Okav.

12 A I mean, I can for some of them, if you'd like 13 me to.

Q No, I want to -- I'd like a rule or a test. I mean, was there any one test or rule or was this a matter of different factors for different people?

A Well, there was sometimes different factors and the paper will reflect the various different factors that went into that.

Q And that's the paper that you have in draft form?

A That's the paper that I've got in a draft, but I haven't -- it isn't anywhere near ready for publication.

progression over decades or progression with small amounts, but not to this degree.

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Q Okay. Well, then, you tell me how -- exactly how -- not just, you know, generally, but you tell me exactly how the progression that you've observed is reflected in tab six is different from the progression of severe diffuse pleural thickening in specific data in the literature. I want to know the data in the literature which you're pointing to that

says you say scientifically is different from the 10 data that you have in Libby. I want to know that 11 12 precisely. That's what I'm getting at.

MR. LEWIS: Objection. Compound question.

Q (By Mr. Bernick) So my question to you is: What precisely is the difference between the data that you report in here at tab six and the data that you see reported in the external literature, and what literature are you referring to?

MR. LEWIS: Objection. Compound question.

A The -- the extent of the loss rates in this is much higher. I mean, the loss rates that you see in the literature is going to be one or two percent. The highest one I've seen is about two percent in the

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Q But to be clear, you're not -- you can't say scientifically that the progression that you've observed in tab six is different from what is reported scientifically in the literature for progression of severe diffuse pleural thickening in the scientific literature, can you?

A I think it actually is. I think this has not been reported.

Q Well, but this data has not been reported,

11 A No, no, this phenomenon has not been 12

Q But you can't -- I mean, have you actually 14 investigated the scientific --

A Yeah.

Q -- literature --

A Yeah, we have.

18 Q -- to look for progression in the scientific 19 literature?

20 A Oh, yeah. Looked at lots of progression articles in the scientific literature and 21

particularly related to amphiboles which, of course, 22

23 this is.

24 Q Okay. So --

25 A And have not -- I've discovered slow gradual

DLCO from Australia per year. Okay? These are -you know, we're looking at 10, 15, 20 percent per 2 year in these people.

Q (By Mr. Bernick) Okay.

A But those -- those studies do not have any real radiography that goes along with them and I've looked at a number of these and there isn't anything that comes comparatively close to this.

Q These -- these are a total of 22 people or thereabouts?

11 A Yeah, thereabouts. It's going to get whittled down some, but --12

Q How did you pick them?

A Oh, just these were people that I saw that -you know, I saw in the clinic or Brad had seen in the clinic and, you know, they came in because they were getting more short of breath and looked at things sequentially and their x-rays and all and, indeed, had a good reason for it.

Q Yeah, but this is a very small subgroup of your patients, correct?

21 22 A Oh, it is a small -- no, no, I didn't say it

23 happens to everybody by any means. I'm -- there's 24 going to be more of them and this took a couple of

25 years to collect this.

72 (Pages 282 to 285)

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Q But -- but did you pick them out -- did you pick them out -- well, strike that.

Progression is something that you can look for throughout your patient population, right?

A Sure.

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- Q And if we looked for progression for people who have a non-malignant disease in your whole patient population and we gathered all the data, would we see a pattern of progression that's different from what we see in the literature?
  - A Probably. With other diseases, you mean?
- Q With other non-malignant diseases. Your non-malignant disease population at Libby.
  - A Sure.
- Q If we took a non-malignant disease population outside of Libby and we said how have they progressed, Libby, non-Libby, would you see an overall pattern of progression in Libby that is different from progression outside of Libby?
- A Well, to my knowledge this is not described in -- outside Libby either. There are diseases that progress rapidly that are non-malignant. Emphysema can do that. Emphysema will progress --
- 24 Q Well --
- 25 A -- quite rapidly.

progressive disease. Now, that's not to say that they don't have some and they haven't published it. I have no idea.

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- Q Well, but that's the whole point is that if you had done a study that included not just the most significant or pronounced cases at Libby, but the broader population, that would then be comparable to studies outside of Libby working with larger populations, right?
- A No, because I think that anybody that was dealing with this on a regular basis that wrote papers or was in a research facility or whatever it is would take note of this and write this up --
- Q I didn't -- Dr. Whitehouse --
  - A -- in a separate paper, not as --
- Q That is -- that's a what or a would or a maybe. I just really want to know what we know. Okay?
- A Well, it's no more of a would or a maybe than what you said.
- Q No, not at all. I'm asking for a fact. If you take -- if you want to make a
- 23 comparison of Libby, non-Libby, you have to have 24 studies that are comparable in scope, right?
  - A Mm-hm. (Answers affirmatively.)

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- Q I'm -- you picked out 18 cases or 22 cases, right?
  - A Well, they sort of picked themselves out.
- Q Right, but they are -- they are a very small subgroup of the total population of people that you've seen with non-malignant disease at Libby, right?
- A That's true.
- 9 Q And, indeed, they are the ones who are probably most dramatic and pronounced when it comes 10 11 to progression, correct? 12
  - A That's correct.
  - Q Now, if you go to the populations outside of Libby where you say the progression has been slower, are they these very select populations like yours here, 18, 22 people selected or are they larger groups of people?
  - A Well, you know, this is a selection of 22 out of the whole clinic population. The studies that I've seen, particularly from Australia which I read on a fairly regular basis because there are many similar problems that they have, they have very large case studies here and most of their studies -- not most of them, all the studies that I've seen out of

there related to progression relate to slowly

- Q I'm sorry? 1
  - 2 A Yes.
    - Q Okay. And so if you have a study inside of Libby that's a large population of people with non-malignant disease and you want -- and you ask what's progression like and you record the result, if you want to know whether the same thing is true outside of Libby, you'd have to have a study that picks out a large population and the study is done in the same way, right, apples and apples?
      - A Yeah.
- 12 Q Okay. Here you have a study in Libby and it's not a big group, it's a small group, and it was a group that was picked precisely because they picked themselves, in your own words, the rapid progression. If you want to know whether that's unique to Libby, you'd have to look for a comparable study outside of Libby, right?
  - A Right, nobody's published it.
  - Q And so -- but it's not that you know it's unique to Libby, it's that you haven't seen a study like this outside of Libby, correct?
- 23 A Yeah, but, you know, I don't have x-ray 24 vision to know whether they actually have it and haven't published it, so if they haven't published

73 (Pages 286 to 289)

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1 it, the likelihood is that they haven't seen it.

- Q Well, but that is -- that is an inference on your part. All you know is that you have a highly select group of people where you've made this observation at Libby and you're not aware of a comparable study outside of Libby, fair?
  - A That's true.

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- Q Okay. Now, if we talk about -- for a moment about a comparable group within Libby, that is, if you were looking for a larger group at Libby to compare it to the larger groups outside of Libby, you said that the larger groups outside of Libby with non-malignant disease reflect gradual loss, fair?
- 14 A Generally.
- 15 Q Okay. There are studies that have been done of larger groups of people at Libby, correct? 16
- A At Libby, you said? 17
- 18 Q At Libby.
- 19 A They haven't -- not on loss of pulmonary 20 function.
- 21 Q Sure, your progression study.
- A Oh, my study, yeah. 22
- 23 Q Okay. So if they took a look at your study
- 24 that you published in 2004, that's a study of a
- larger group of people, correct? 25

1 A No, I didn't. I just took all-comers. 2

Q All-comers?

A When they had their second pulmonary function and everybody got a second pulmonary function, so there was no bias in selection.

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- Q Okay. So the 2004 progression study that you did was an all-comers, no selection, no bias study, correct?
  - A Right.
  - Q And that's comparable apples and apples with large group studies outside of Libby that you've looked at and found the slow progression, correct?
- Q Whereas, this -- this paper that's not yet published is not an all-comers paper, it's a select aroup?
- 17 A It is a select group. Perfectly willing to 18 admit that.
- 19 Q Okay. And that's what's reflected in tab six 20 to Exhibit-1, correct?
- 21 A Mm-hm, yes.
- 22 Q Now, if we take a look at your 2004 paper, 23 you had the all-comers group, but you only looked at 24 two data points, correct?
  - A That's true.

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- A Mm-hm. (Answers affirmatively.)
- 2 Q I'm sorry?
- 3 A Yes.

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- 4 Q And that would be a good place to go if you 5 wanted to see is the experience at Libby different from the experience outside of Libby because that's the study that's working with a larger group of 7 8 people just like the larger group of people outside 9 of Libby, correct? 10
  - A That's exactly what it showed, that it was higher than the --
  - Q We'll get to what it showed. Just answer the question.
    - A -- prior published studies.
    - Q Please just answer the question.

Is the study that you did in 2004 on a larger group of people a good place to go for an apples and apples comparison with studies of progression in large groups of people outside of Libby?

- A Yes, probably.
- 21 Q Okay. Now, when you did the study in 2004, you picked out people and you looked for progression, 22 23 correct?
- 24 A No.
- 25 Q How did you pick out --

Page 293 Q And, in fact, if we look at that all-comers group, it turns out that many of them had many more data points, correct?

A I took the first one that I had and the last one that I had when I was doing the study and they had more data points later on. No question they had more data points. There were also some people that got into a study with Enbrel\* and that -- I did not take them because of that.

Q Didn't ask you that question with all due respect, Dr. Whitehouse.

MR. LEWIS: Doctor, just try to answer the questions that counsel is asking you. Okay? THE WITNESS: I thought I was.

Q (By Mr. Bernick) I know. That's okay, but let's just keep on going ahead.

The 2004 study, you used only two data points with respect to each of the individuals in that study, correct?

- 20 A Yeah.
- 21 Q And isn't it true that there were many more 22 data points that were available to be used in that 23 study beyond those two data points?
- 24 A No, because I cut it off at a certain point, 25 put the data together and ignored everything that

74 (Pages 290 to 293)

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went on afterwards. That wasn't germane to the 2 study. It was the first and last. Q Will you agree with me that with respect to 3

all those people, there were many other data points that were available, it was your decision not to use them?

A No, they weren't available when I wrote the paper.

Q Oh.

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A That's what I said.

Q They weren't available when you wrote the paper?

A Because they hadn't been done yet.

Q Oh, they hadn't been done yet, okay. So now if we took a look at these people who

were in the 123 study -- 123 study in 2004, that same population, and we looked to all of the data that's available on their progression, have you done that

19 analysis? 20

A I have not.

Q Isn't it a fact that if we looked to the other data points with respect to the people in your 2004 study, we'd find dramatically different

24 progression numbers from which you put in the paper? 25

A I do not know that at all. I doubt that

Page 294

1 A You could examine data up until the present

Page 296

time. You could continue to examine data.

3 Q Sure.

A But there's no point.

5 Q Okay. But you haven't done that examination of data? 6

A No, and I don't intend to.

Q Have you ever done a progression study with

9 respect to non-malignant disease in all 950 --

A No.

11 Q -- of the people that you've looked at?

12 A No.

Q There's no reason you couldn't do it,

14 correct?

A No, and it will be done.

Q Let's talk about progression to death. That was the other thing that you said was distinctive in connection with the Libby population.

Are you aware of any comparable study that's been done of progression outside of Libby?

A Progression in general?

22 Q No. You say that the Libby experience with non-malignant disease, severe -- I'm all focused on 23 24 severe diffuse pleural thickening -- is different

25 because of the rate of the frequency of progression

Page 295 Page 297

seriously.

2 Q Would that be an important thing to do to 3 find out the truth of what happened with those people, to look at all the data rather than just two 4 points? 5

6 A Well, it'll be a little bit hard to do 7 because about 40 of them have died already. Between 35 and 40.

9 O Not at all.

10 A What?

11 Q No, because even with respect to those people, you'd have more data before they died. 12

A You know, there isn't any point to doing that.

15 Q Why?

A The study was done honestly. It was done --16

Q I'm not --

17 18 A -- looking clearly at those studies and --

Q There's no dispute about that.

20 A Okay.

Q I'm not saying there was -- I'm not saying 21

anything else. I'm saying if you wanted to know more 22

of the truth of what happened to the people in your 23

all-comers study in 2004, there's more data that 24

could be examined, correct? 25

to death. Do you remember that? A Yes.

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3 Q Okay. And I'm just asking whether you've actually looked for comparable data outside of Libby 4 to know whether it really is unique to Libby. Have

6 you done that?

A For progression of death, no.

Q Okay. Now, in progression to death in the case of the Libby data that you have, my

understanding -- and I want to get a little bit into 10 this and I've got one more -- a few set of questions 11

and then I'm done, get out of here, take an airplane. 12

13 Okay?

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So in the case of Libby, as I understand it with respect to the CARD mortality study, you had a patient population of people who had died and you

16 performed this analysis to determine the 17

circumstances leading to their death and we got down 18

to a subgroup of about 76 people who you say had 19

20 non-malignant respiratory disease and they progressed

and they died, right? 21

22 A Yes.

23 Q And that's what you rely upon as your source

24 of information to say that the people in Libby with

non-malignant respiratory disease progressed to death

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Page 298 with greater frequency than would be the case outside

2 of Libby, correct?

A Correct. 3

- Q Okay. Now, as part of that exercise, you looked at the death certificates, right?

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- Q But you also had this procedure called best 7 available information, right? 8
- 9 A Yes.
- 10 Q And this best available information procedure that you applied, you felt, had precedence in 11
- Selikoff's own work, correct? 12
- 13 A Had precedence? 14 Q Yes.
- 15 A It was sort of an additive more than a 16 precedence.
- 17 Q Well, but, see, that you felt there was a 18 precedent for what you're --
- 19 A Oh, I see.
- Q -- doing. 20
- 21 A I see what you're talking about. I'm sorry.
- Q Yeah. There's precedent for what you were 22
- 23 doing in Selikoff's work, correct?
- 24 A Yeah, I think so. As best I can tell, we try to replicate that. 25

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- A Not that I'm aware of.
- Q Okay. Now, in connection with your own best available information analysis that was done in connection with the CARD mortality study, was there a written protocol?

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Page 301

- A No.
- Q Dr. Frank said that in the Selikoff work, he said that there was a death certificate available for all of the people who were involved in Selikoff's mortality study. Was that your understanding?
  - A Yes, it is.
- Q And he explained to us that a death certificate will have two sources -- two pieces of information about the cause of death. One is the immediate -- temporally immediate cause of death and the other is the cause of death, that is, an assessment about what the real cause of death was.
- 19 Is that your understanding of how death certificates are supposed to be filled out? 20
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  - A That's how they're supposed to be filled out, but that's probably the biggest failure of physicians is filling out death certificates.
- 24 Q Right. 25
  - And he also said that when Selikoff did the

Page 299

- 1 Q Okay. And Selikoff's work, you also got information on what Selikoff had done and his best available information analysis, you had information from Dr. Frank, right? 4 5
  - A Yes.

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- Q Okay. Now, Dr. Frank told us that Dr. Selikoff did this best available information work and he said that there was no written protocol for it. Is that consistent with your understanding?
- A I think so, although I know they did use sort of a protocol as to what they did. When you read the paper, they sort of tell you how they went about doing it. Whether that's a protocol or not, I don't know.
- Q But are you aware of any written protocol that was actually used by Dr. Selikoff in his work on best available information?
  - A No.
- Q Okay. Are you aware of any other -- are you aware of any protocol that exists in the field of 20 scientific research for mortality studies that is a best available information protocol? In other words,
- 22 can we look anywhere and find in the literature on 23
- mortality studies a protocol or an established 25 methodology for doing a best available information

- best available information assessment that the
  - 2 criteria or what was being looked for didn't change.
  - They were looking for the best or the cause of death,
  - what the real cause of death was, not the condition 4
  - 5 immediately preceding death, but the real cause of
  - 6 death. Is that your understanding of --
    - A Yes.
  - 8 Q -- how Selikoff did his BAI or best available 9 information analysis? 10
    - A Mm-hm. (Answers affirmatively.)
  - Q I'm sorry? 11
    - A Yes, I agree.
  - 13 Q Okay. Now, when it came time for doing the 14 best available information assessment in the case of
  - your work on the mortality -- the CARD mortality 15
  - data, it's true, is it not, that you determined what 16
  - 17 the -- in the sense, the cause that you were looking
  - for should be, that is, you determined whether you 18
  - were going to look for a substantial contributing 19
  - 20 factor to death or the cause of death, that was your decision? 21
  - 22 A It was looked -- both of those were looked 23 at.
  - 24 Q I'm sorry?
  - 25 A Both of those were looked at.

76 (Pages 298 to 301)

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- Q When it came to defining what to look for in the CARD mortality data regarding cause of death, the test that was to be applied was your decision, right?
  - A Yes.

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- Q Okay. And you've told us that two different tests were used. In the first analysis, the test for determining the cause -- for determining cause of death in the mortality data, the test was, was asbestos a substantial contributing factor, or words to that effect, correct?
  - A Correct.
- 12 Q And on the basis of that, you gathered 13 information regarding these 79 people who had 14 non-malignant disease and died, right?
  - A Right.
  - Q And then you changed the test in the second go-round and what was the test in the second go-round?
    - A Best available information.
  - Q Best available information regarding what? Whether asbestos was a contributing cause or was it whether the asbestos related to disease was the cause of death?
  - A Yeah, what we did was -- there were a lot of people that had -- or not a lot, but there were

A Correct.

Q What was the test they satisfied, that is, are the people on Exhibit-15 people with respect to whom asbestos-related illness was a substantial contributing factor to death, a major causative factor for death, the cause -- the cause of death? What was the test that was used in putting people in the group of 79 that's in Exhibit-15?

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- A I already answered that. It was the last two.
- 11 Q The last two?

A It was either directly asbestosis or it was the asbestosis was so severe that they had something like a pneumonia so that the cause of death may have been pneumonia because a lot of those underlying -- and it said asbestosis or if it -- you know, the death certificate said something like COPD, which it did several times, we went and looked through the whole chart and found out that they had severe asbestosis, they didn't even have COPD, and that's been a common problem in Libby for years and years.

- Q But -- but my question --
- A So it was -- it was a direct result of the asbestosis or we wouldn't have coded it that way.
  - Q Well, that's really what I'm getting at.

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people that had a contributing cause where they had -- we knew they had significant asbestosis, but when we really came right down to it in the nitty gritty, we couldn't be sure if they wouldn't have died of their disease of whatever they had at that point, whether it was asbestosis or whatever it was.

To use asbestosis as a piece of information, that it was a major causative factor in their death, we had to look at the severity of their disease, how it was affecting them at the time, what happened to them as the terminal event, and whether it could be related either directly to the asbestosis or if the terminal event was such that they couldn't survive it because of their asbestosis.

Q Okay. So let's get this to the bottom line.
The people that you rely upon for your opinions regarding progression to death for non-malignant disease are the people that are listed in Exhibit-15, it's those people there, the 79 people, right?

- A Right.
- Q And those 79 people are people who satisfied the best -- the BAI test, the best available information test with respect to non-malignant asbestos disease, correct?

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On the death certificate, it's supposed to be -- we heard from Dr. Frank it's supposed to be the cause of death, right?

- A Yes.
  - Q Did you apply that test and that test only --
- A No.
- 7 Q -- in deciding -- so just let me finish my 8 question.

Did you apply that test and that test only, that is, the cause of death including people on Exhibit-15 that is within your 79 group or was there some other test as well?

- A No, ultimately, it wasn't the death certificate because the death certificates were so frequently wrong.
  - Q I'm not talking about death certificates.
  - A It was reviewing the entire chart.
- 18 Q I know.
- 19 A Well, then I don't get your question.
- 20 Q Okay. That's fine.

21 I know that you could either go with the 22 death certificate or go with more information or go

- 23 with both. I know that. But, ultimately, the
- 24 information that you're gathering has to be judged
- 25 according to some test, and we know that the test

77 (Pages 302 to 305)

Page 306 that's supposed to be used for filling out a death 2 certificate is the test of, well, what was the cause of death, and Dr. Frank has told us that and I think 3 you've agreed, right? 4 5

A Yeah.

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Q And Dr. Frank says when Selikoff did his BAI work, he looked for more information that was on the death certificate, but the test was still the same, that is, what was the cause of death, so I'm now asking in the case of your work with the CARD mortality data and including people in your group of 79 people who are people where you say their death was in some fashion related to non-malignant disease. I'm asking for what tests you used.

Was it the test of, what's the cause of death? Was it, was asbestos-related illness a substantial contributing factor? Was it, the asbestos-related illness was a major -- which test did you use?

A Same way you described for Selikoff, took the death certificate regardless of what the death certificate said, reviewed the chart, and found out whether or not that was -- if it said asbestosis, was that legitimate, really was asbestosis and respiratory failure or was it a pneumonia but

1 information.

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Q That's information?

A Mm-hm. (Answers affirmatively.)

Q But if I want to know with respect to anybody who is on Exhibit-15, that is, for whom you're relying for your idea of progression to death, is there any way that I can determine how you decided what the cause of death was for any of those people?

Page 308

A Probably not because it -- after I've gone through all the things I need to go through, then I fill out on my computer whether it was related to asbestos or whether it was not related to the contributing cause.

Q So there's no place that even today --

A There's no written record that will help in that.

Q Now, my last question and I am done -- just in time -- relates to going from your group of 79 people.

You've told us that the 79 people who are listed in Exhibit-15 are the source of information regarding how people with severe diffuse pleural thickening present differently you think from people with the same disease outside of Libby, and we've gone through that now in all the different areas of

Page 307

asbestosis was the underlying cause. Was it cor pulmonale, but asbestosis was a cause of cor pulmonale.

4 Q So --

5 A We were looking for direct cause.

Q You were looking for direct cause, that is, 6 the same way a death certificate should be filled 7 8 out?

A Yeah, the way it should have been filled out in the first place, yes.

Q Okay. And that's how you included people in your --

13 A Yes.

14 Q -- group of 79; is that right?

15 A Yes.

Q Now, is there anything -- any place that we 16 can go to see how you made that judgment for any of 17 the people who are on your list of 79, that is, Exhibit-15? Is there any place where we can go to 19 20 find out how you made the judgment about the cause of 21 death?

22 A No, except to go to the chart and you've got other places. You know, I talked to doctors about it 23 and talked to the family physician as to what 24

25 happened, all kinds of things like that to get the

Page 309 difference, thickness of pleura tissue, occupational

2 history or exposure history, blunting, and

progression, right?

A Right.

Q Okay. Now, you offered the view that you could use the information that you have about the 79 people from the CARD mortality study and extrapolate to the 950 or, thereabouts, people who have made claims in this case, right?

A Correct.

Q Okay. And I take it then that you're not going to be relying upon the remaining 850 people for any of your opinions in this case; is that right?

A No, there's no way I would be able to in --MR. LEWIS: No, I think that was

confusing. I don't mean to interfere.

MR. BERNICK: I'll --

18 MR. LEWIS: You're talking about -- are 19 you talking about opinions relating to the

20 progression?

> MR. BERNICK: I'll be very clear. MR. LEWIS: Okay. Because it's --MR. BERNICK: I'll be very clear. MR. LEWIS: All right.

25 Q (By Mr. Bernick) We know that there's a

78 (Pages 306 to 309)

Page 310 Page 312 pleural disease, et cetera, et cetera. motion that's been -- are you familiar there's a 1 2 motion that's been filed in this case? 2 MR. LEWIS: Exhibit-15 and -16, is that A Only one, I understand. 3 3 what you're --4 Q Okay. A motion that's been filed in this 4 MR. BERNICK: No. 5 5 case to strike testimony that's based on the 1,800 THE WITNESS: No, no. because we don't have the 850 files. Are you MR. BERNICK: It was the diagram. 6 6 7 THE WITNESS: It was the one that Joel 7 familiar with that? 8 A Yeah, I'm familiar with it. 8 did that --9 Q I'm sorry? 9 Q (By Mr. Bernick) Well, let me just be clear. 10 A Yes, I am. 10 A Okay. Q And who told you about that? Q If I go to your expert report, I cannot 11 11 A The lawyers. find -- let me begin even more basically. 12 12 13 Q And what did they tell you about it? 13 The 950 people, you've not performed a study 14 A That I might not have to go back east. 14 on the entirety of the 950 people, correct? 15 Q That's pretty --15 A That's correct. A They were helping me plan my summer. 16 Q You've not published a paper on the 950 16 Q And you understand, therefore, the problem 17 17 people, correct? 18 that's been identified or has been alleged in the 18 A That's correct. 19 motion is that the people in this case don't have the 19 Q You've not issued an expert report on -- that records for the 850 people. Do you understand that? 20 presents the data of all the 950 people, correct? 20 A That's what I've heard, yeah. 21 21 A No. 22 Q And so, basically, is it correct that what 22 Q I'm sorry. Is that correct? 23 you're saying now is that you believe you can offer 23 A That's correct. 24 the opinions that you have to offer in this case 24 Q Now, you have said though that you believe without having to rely upon the full 1,800, rather you can extrapolate from the experience with the 25 25 Page 311 Page 313 subgroup of the 950 to the 950, right? you can express your views simply confined to the 950 1 2 2 A That's correct. people? 3 A Yeah, I think so for a number of reasons. 3 Q Okay. Now, have you presented an expert Q Oh, I didn't ask you reasons. report on that subject? 4 4 5 A Oh, you don't want me to answer that? 5 A I think it's somewhere in there, but I'm not 6 Q That's what you're doing and that's --6 sure where. A That's basically what I'm doing, yes. 7 7 Q Not somebody -- have you actually presented a Q Okay. And that's basically, fair enough, a formal extrapolation from a subgroup of the 950 to 8 9 response to this issue that's been raised? 9 the 950? I haven't seen it anywhere, but if it 10 10 A I guess, you know. exists in your report, I'd like to know about it. 11 Q Okay. Now, in order to get opinions about 11 A I thought there is some -- there's reference the 950, you don't have analyses of all the 950 to it in there somewhere, but I don't know where it 12 12 people, correct? 13 is exactly. I can find it if you want me to or try 13 14 A Not entirely. I do have some analyses 14 that -- I have one in particular that's of help. 15 Q What is -- just tell me, what's the subgroup 15 Q Well, has it been made available to us? that you're extrapolating from? 16 16 A Yeah, it's on the sheet somewhere. I don't 17 A Okay. The -- there's two parts to this. 17 know where it is, but somewhere it is -- and I can 18 First off is that all 950 of those that have lawsuits, all sort of -- all filed them before the 19 relate it to you right now if you want to, how we --19 how I arrived basically at some notions concerning 20 bankruptcy or shortly -- or around the time of the 20 that 930 to 950, whatever it is. 21 21 bankruptcy or the vast majority of them did. They 22 Q Hang on for a second. 22 were all filed somewhere early in this century. 23 23 If I have it -- and I don't want something --Q Let's just stop there. A It's probably on that sheet that you had that 24 Where is that data set out? I'm not aware of 24 had all the numbers on it of how many people had 25 the 950 broken down into people who filed before and

79 (Pages 310 to 313)

	. W.K. Grace & Co., Debtor		
	Page 314		Page 316
1	after the bankruptcy.	1	want to offer an opinion, and you believe that they
2	A Well, no. Well, almost all of them filed	2	fall into they show a similar breakdown,
3	beforehand and I do know that to be a fact.	3	community, worker, family, but we don't have that
4	Q And I've not seen that. Do we have the	4	breakdown here today, fair?
5		5	A That's fair.
	analysis?		
6	A No, you don't have an analysis of that.	6 7	Q Okay. Go ahead.
7	Q Okay. Next step.	-	A And based upon that, the probability that the
8	A The second point is that the breakdown on the	8	statistics in the mortality study will follow through
9	mortality study was 33 percent for miners. The	9	on the 950
10	remainder it was basically almost a third, a	10	Q Okay.
11	third, a third.	11	A of what we know about the disease and then
12	Q You say the mortality study	12	we'll see a similar similar death rate,
13	A Yeah.	13	ultimately.
14	Q When you say the mortality study	14	Q Okay. And that's your extrapolation?
15	A You extrapolate that	15	A That's the extrapolation.
16	Q Hang on.	16	Q Now, is that extrapolation set out in writing
17	A You	17	anywhere that we can look at?
18	Q No, no, no. I just want to get it piece by	18	A I think it is, but I don't know where it is,
19	piece.	19	whether it's in my report or whether it's in the
20	The breakdown that you say of the mortality	20	data. I think it's in the data that was submitted to
21	study, who in the mortality study, the 79?	21	you.
22	A The 79.	22	Q Is there any report that explains for us the
23	Q The 79?	23	scientific basis for believing that that
24	A The 79.	24	extrapolation is sound?
25	Q So if we go to the 79 people, there's a	25	A I doubt there's any specific report, no.
	Page 315		Page 317
1	Page 315 breakdown between who was a worker and who was a	1	Page 317  Q Okay, Now, I want to then, finally, focus on
1 2	breakdown between who was a worker and who was a	1 2	Q Okay. Now, I want to then, finally, focus on
2	breakdown between who was a worker and who was a family member and who was community?		Q Okay. Now, I want to then, finally, focus on epidemiology. Okay?
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	breakdown between who was a worker and who was a family member and who was community?  A Right.  Q Okay. And that's indicated in Exhibit-15, right?  A That's Exhibit yeah, somewhere in there.  Q Okay.  A And then if you look at the 950 claimants, the breakdown is almost identical. I mean, it's within a couple of percentage points.  Q Where do we see where is that done?  A Oh, the lawyers have done it.  Q Do I have  A I don't know.  Q Do I have present in some fashion to us here in the case the breakout of the 950 by community exposure, family exposures, and worker exposure?  A I think you do, but I don't know where it is. I mean, they would have given it to you.  Q But you don't have it here today?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q Okay. Now, I want to then, finally, focus on epidemiology. Okay? Is it correct there's no epidemiological analysis that's been done on the CARD patient population? Is that true? A Well, yes, there has been because the ATSDR and NASA and all that have followed through and gotten their exposure histories and haven't published it yet. Q Well, I'm talking about I'm talking about something I can get ahold of, something that's available to us. Is there any available epidemiology on the people at the CARD clinic? A You know, there's some stuff that just came out recently. There are several things actually you might want to one is there was a pilot study that was done in 2000. Q Pilot study? Is that an epidemiologic study? That's a pilot study.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	breakdown between who was a worker and who was a family member and who was community?  A Right.  Q Okay. And that's indicated in Exhibit-15, right?  A That's Exhibit yeah, somewhere in there.  Q Okay.  A And then if you look at the 950 claimants, the breakdown is almost identical. I mean, it's within a couple of percentage points.  Q Where do we see where is that done?  A Oh, the lawyers have done it.  Q Do I have  A I don't know.  Q Do I have present in some fashion to us here in the case the breakout of the 950 by community exposure, family exposures, and worker exposure?  A I think you do, but I don't know where it is.  I mean, they would have given it to you.  Q But you don't have it here today?  A I do not have it here today.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q Okay. Now, I want to then, finally, focus on epidemiology. Okay? Is it correct there's no epidemiological analysis that's been done on the CARD patient population? Is that true? A Well, yes, there has been because the ATSDR and NASA and all that have followed through and gotten their exposure histories and haven't published it yet. Q Well, I'm talking about I'm talking about something I can get ahold of, something that's available to us. Is there any available epidemiology on the people at the CARD clinic? A You know, there's some stuff that just came out recently. There are several things actually you might want to one is there was a pilot study that was done in 2000. Q Pilot study? Is that an epidemiologic study? That's a pilot study. A Oh, that probably does not qualify, you're
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	breakdown between who was a worker and who was a family member and who was community?  A Right.  Q Okay. And that's indicated in Exhibit-15, right?  A That's Exhibit yeah, somewhere in there.  Q Okay.  A And then if you look at the 950 claimants, the breakdown is almost identical. I mean, it's within a couple of percentage points.  Q Where do we see where is that done?  A Oh, the lawyers have done it.  Q Do I have  A I don't know.  Q Do I have present in some fashion to us here in the case the breakout of the 950 by community exposure, family exposures, and worker exposure?  A I think you do, but I don't know where it is. I mean, they would have given it to you.  Q But you don't have it here today?  A I do not have it here today.  Q So you have the 79 people that we have broken	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q Okay. Now, I want to then, finally, focus on epidemiology. Okay? Is it correct there's no epidemiological analysis that's been done on the CARD patient population? Is that true? A Well, yes, there has been because the ATSDR and NASA and all that have followed through and gotten their exposure histories and haven't published it yet. Q Well, I'm talking about I'm talking about something I can get ahold of, something that's available to us. Is there any available epidemiology on the people at the CARD clinic? A You know, there's some stuff that just came out recently. There are several things actually you might want to one is there was a pilot study that was done in 2000. Q Pilot study? Is that an epidemiologic study? That's a pilot study. A Oh, that probably does not qualify, you're right.

80 (Pages 314 to 317)

Page 318 Page 320 recently, but I -- I honestly don't know what's 1 Q Okay. 2 available. 2 A -- except for what you have here. Q Well, but there is no epidemiology that you 3 Q Today, can you point to any epidemiological 3 4 study that's been done on the CARD patient 4 presented here on the CARD Clinic, correct? population? 5 5 A Well, the mortality study is an epidemiologic 6 A No, except for the one that I've done on the 6 study, sure. pulmonary functions which is (inaudible) 7 Q The CARD study? 7 epidemiologic study. I guess in a sense the Sullivan 8 8 A No, the mortality study. 9 study was an epidemiologic study. 9 Q The mortality study is an epidemiologic Q That's on ATSDR? 10 10 study? A Sure. Sure, it is. 11 A And Peipins was certainly an epidemiologic 11 study. Those are the three that I'm most familiar 12 Q Just what you have in your little expert 12 13 13 reports is an epidemiological study? 14 Q Well, the Peipins study was on the ATSDR 14 A No, this whole thing here becomes an 15 population, right? 15 epidemiologic study. Q Oh, I'm sorry. A Yeah. 16 16 17 So you've now said that Exhibit-15, the list 17 Q And we've already -- we already know that, at least Judge Malloy\* didn't feel it was an of 79 people, is an epidemiological study? 18 18 19 epidemiological study, correct? 19 A Yeah, it's a descriptive epidemiologic study. A He -- he said it wasn't. 20 Q It's --20 21 Q Yeah, that's his --21 A It describes -- it describes in a patient A Well, he's wrong. 22 22 population certain parameters. That becomes 23 Q Well, he may be right or wrong, but with 23 epidemiology. 24 respect to the CARD patient population, you rely upon 24 Q Oh, I see. Let's talk about a controlled the CARD patient population for your opinions in this epidemiologic study. 25 25 Page 319 Page 321 There's no controlled epidemiological study case, correct? 1 2 that's been done on the CARD patient population, 2 A That's true. 3 Q And today -correct? A Well --4 4 A No, and there probably never will be. 5 5 Q There's no controlled epidemiological study Q Well, we went through -that you can cite to support your opinion that the 6 A Let me backtrack a little bit on that one 6 7 presentation of severe diffuse pleural thickening at 7 before I say yes because a lot of the data that I 8 Libby is different from the presentation of severe rely on is -- they are patients at CARD now, but a 9 lot of it goes back way beyond when I was actually in 9 diffuse pleural thickening outside of Libby, correct? 10 A No, we've already discussed that. 10 the CARD. Okay? Q I said -- I'm asking about controlled 11 Q I know. That's your personal knowledge and 11 12 epidemiological studies. There's no study --12 that's your experience, but in terms of scientific A No, there aren't any. data that you're relying upon, you're relying upon 13 13 scientific data from the CARD Clinic, correct? 14 Q Okay. And the same thing would be true 14 A Yeah, and the stuff that you've seen here. regarding your opinions of progression, correct? 15 15 There's no epidemiological study that you can point 16 Q Right. That's all -- all the stuff I've been 16 seeing here, when it comes to Libby, is data from the to, controlled, that supports those opinions, 17 17 CARD Clinic, correct? 18 correct? 18 A Well, there's no place else to get it 19 A That's true. 19 20 actually on these people except at the CARD Clinic. 20 MR. BERNICK: Okay. And I have no further questions at this time. Sorry to take so Q And today, is it true, that you can't point 21 21 to any epidemiological work study that's been done 22 much of your time today, Dr. Whitehouse, although we 22 23 and available to us on the people from the CARD 23 always enjoy the debate, right? Clinic, correct? 24 THE WITNESS: I'm not so sure about 24 25 A That's true --25 that necessarily.

81 (Pages 318 to 321)

In re: W.R. Grace & Co., Debtor

Alan C. Whitehouse, M.D.

	Page 322		Page 324
1	MR. BERNICK: Oh, come on.	1	various asbestos claimants?
2	Anybody on the phone have any questions?	2	A Yes, certainly.
3	MR. SVIRSKY: Yeah. This is Gary	3	Q How many did you consider in total?
4	Svirsky from O'Melveny & Myers. I have a few	4	A Are you talking about Libby or and what
5	questions for Dr. Whitehouse.	5	first deposition? In March or two years ago?
6	MR. BERNICK: How long is it going to	6	Q I'm referring to the deposition in March.
7	take, roughly?	7	A I think
8	MR. SVIRSKY: I don't know. It depends	8	Q How many did you consider in total, sir?
9	on how much Dr. Whitehouse has to say. Maybe twenty	9	A Well, basically, I'm not sure I can answer
10	minutes. Maybe thirty minutes.	10	that question. Basically, I see most of the patients
11	MR. LEWIS: Can we take a break then?	11	at the CARD Clinic at one time or another and I ask
12	MR. SVIRSKY: I'm happy to defer to	12	most of them about their exposure histories.
13	anybody else in the room who wants	13	Q Could you give an approximate number of the
14	MR. BERNICK: No, no, we're all dying	14	number of individual exposure histories you
15	to hear your questions.	15	considered in rendering your opinion in this case?
16	MR. SVIRSKY: Oh, okay.	16	A That's a hard question to answer because I
17	MR. BERNICK: We're not sure why why	17	don't keep track of it, but I'm sure well over a
18	Arrowood would have any particular interest in this	18	thousand.
19	case, but that's also a subject of curiosity, so go	19	Q Is it over two thousand, sir?
20	ahead.	20	A Well, not in Libby, no. It's less than that.
21	Oh, do you want to take a break?	21	Q And how many individuals from Libby did you
22	MR. LEWIS: Just a very short	22	consider?
23	MR. BERNICK: We'll take a short break.	23	A Well, that thousand that I told you about is
24	We'll let you know when we come back.	24	probably the ones that I've taken exposure histories
25	MR. SVIRSKY: All right. Let me know	25	from.
	Page 323		Page 325
1	when you're ready.	1	Q I see.
2	THE VIDEOGRAPHER: We're going off the	2	And are there others outside of Libby that
3	record. The time now is 4:12 p.m.	3	you considered in rendering your opinion in this
4	(Recess.)	4	case?
5	(Mr. Bernick exits.)	5	A Well, yeah, all the patients that I saw for
6	THE VIDEOGRAPHER: We're back on the	6	Hanford and other asbestos places in the past, mostly
7	record. The time is now 4:24 p.m.	7	prior to 2002, and there's probably 500 of those.
8	EXAMINATION	8	Q Okay. And where did you get those patients'
9	BY MR. SVIRSKY:	9	information, the ones outside Libby?
10	Q Dr. Whitehouse, can you hear me?	10	A Oh, I took it myself.
11	A I can.	11	Q Now, there's a database that's been referred
12	Q Okay. Good afternoon. My name is Gary	12	to as the 550 database. Are you familiar with that?
13	Svirsky. I'm an attorney at O'Melveny & Myers. I	13	A I am.
14	represent Arrowood Indemnity Company formerly known	14	Q Other than the lost 550 database, how many of
15	as Royal Indemnity Company.	15	the patient histories have you considered both inside
16	I've got just a few questions for you, and	16	Libby or within Libby and outside Libby are still in
17	since we're doing this by phone, please let me know	17	your possession?
18	if you can't hear me or something comes across	18	A Oh, the histories? All of them. They're all
19	garbled and I'll try and restate.	19	at the CARD Clinic. Is that what is that what
20	A Okay.	20	you're referring to in those patients?
21	Q Fair?	21	Q Well, I'm talking the CARD Clinic is
22	A Understood.	22	does not contain the Libby individuals, does it?
23	Q Okay. Now, Dr. Whitehouse, am I correct that	23	A Yes, it does.
24	you stated in your first deposition that you have	24	Q It does.
25	considered hundreds of exposure histories from	25	So you just told me you considered about a

82 (Pages 322 to 325)

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thousand individuals within Libby; is that correct? 2

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A Or probably more, but I don't know -- you know, I've seen most of the patients in Libby at one time or another, but some of them I didn't need to take an exposure history from them. It was already well done. I didn't need to do it.

Q Of those individuals within Libby whose exposure history you considered, how many are still in your possession?

A They're in the possession of the CARD Clinic, every one of them. Every patient that I saw in my private practice and at the CARD Clinic's chart remains at Libby unless for some reason it got lost when I quit my practice in 2004.

Q And have you produced those in this action, sir?

A As far as I know, everything has been produced, yes.

Q And what about the patient histories for individuals outside Libby? How many -- you said you considered about 500 or so of those; is that correct?

A I have none of those charts. Those charts have undoubtedly been destroyed by now because there's a seven-year statute of limitations and they were in the possession of another pulmonary group A No, I don't have that now, although the

database in Libby does have it. Q I'm sorry. Can you say that again, please? 3

A The Libby database does have it and it now is nearly at a point where it can function.

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Page 329

Q But you don't know offhand what the percentage is?

A No.

Q Did you ever consider how many of the individuals that you -- whose histories you reviewed worked at blue collar jobs other than Grace?

A Yes.

13 Q And what percentage of individuals would that 14 be?

A I don't know the exact percentage, but I know there were people that worked in the lumber mill which was blue collar jobs and had some exposure to asbestos as well.

Q What was -- not as an exact number, but what's your best sense of that number?

A Ah, geez. You know, I really don't know. Probably less than ten percent, but I don't know the number. The lawyers have that number.

Q Did you consider whether any of the individuals from Grace had worked at blue collar jobs

other than Grace? 1

A Yes. That's what --

Q Is that the ten percent answer you gave me or

4 is that a different number? 5 A No, that's that ten percent that I -- that's not very exact. There were people that worked 6 7

outside of Libby around asbestos. Q And do you know what percentage of individuals that was?

A No.

11 Q Did you ever consider whether any individuals whose history you reviewed worked in ship building? 12

A Yeah, there were some that did work in ship building and there were some in Libby that had worked in ship building. Some of them were in the Navy also.

Q How many would that be?

18 A I have no idea. You're asking me numbers 19 that I haven't kept track of. Not a lot. Probably 20 twenty, thirty at the most.

Q Did you consider how many of the individuals 21 22 whose histories you reviewed had done work with brake 23 linings?

24 A That question was asked and it was a very 25 small insignificant number.

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that act as the -- sort of the safe keeper and distributor of them after I quit practice, so those probably do not exist any more because they just finished, I think, in the last couple of years cleaning out a lot of old charts.

Q Now, Dr. Whitehouse, how many of the individuals whose histories you reviewed claim that they were exposed to asbestos from sources other than Grace?

A You mean the ones in Libby?

Q All the individuals you reviewed.

A Well, the ones that I reviewed, you know, in my office previously, none of them had Grace exposures, those 500. The ones that I saw in Libby all had exposure in some form or another to Libby asbestos. They also -- some of them had exposure to other forms of asbestos in their employment.

Q How many of the individuals who had -withdrawn.

What percentage of the individuals had exposure to sources other than Grace?

A I have no idea.

Q So is it correct that you did not attempt to quantify what share of the individuals in Libby had exposure to asbestos from sources other than Grace?

83 (Pages 326 to 329)

Page 330 Page 332 1 (Ms. Rickards returns from 1 Q And was there any time frame you used for 2 recess.) temporary residents? A No, it was just recorded as to how long they 3 Q (By Mr. Svirsky) Did you do -- did you 3 4 consider how many individuals had been exposed to 4 lived there or whether they vacationed there or what brake linings in their homes fixing their own cars? 5 5 the case may be. A No, I never asked that question. Q Did you break out the effects for miners 6 6 Q Did you consider how many individuals were 7 7 versus non-miners? exposed to gaskets, either professionally or in doing 8 8 A Oh, yes. 9 personal repairs? 9 Q Did you break out for smokers versus 10 A Not specifically. 10 non-smokers? Q Is that a no or is there a portion that's 11 11 A Yeah, we have that in the database too. not -- specifically that's a yes? 12 12 Q And for smokers, you broke it out by how much 13 A I guess that's a no. 13 they smoked? 14 Q Did you ever consider how many of the 14 A Yes. 15 individuals whose histories you reviewed were exposed 15 Q And do you know how many of the individuals to any form of insulated piping, either in Libby were smokers? 16 16 professionally in their work or in doing repairs at A No. It's got the highest incidence of 17 17 home or elsewhere? 18 18 smoking quitting (sic) in the world, I think, since 19 A No, there's a fair number that were, but, 19 2000. Almost every smoker quit. again, I don't have a number on that. 20 Q Do you know how many were smokers before 20 21 Q Did you consider how many individuals worked 21 2000? with insulated piping not professionally, at home 22 22 A No, but it probably was like the general 23 doing repairs? 23 population of a blue collar area, and I think a large 24 A I don't think I asked that. 24 number of the miners smoked, most of them probably. Q What is the ratio for the general population? 25 Q Did you consider how many people did welding 25 Page 331 Page 333 professionally or otherwise? 1 A What do you mean? Of miners? 1 2 Q Yeah. You just said it's probably like the 2 A Yeah, we do have that in the database, yes. 3 Q Did you specifically consider how many general population of blue collar workers. individuals worked with welding rods in a What is the ratio of the general population 4 4 5 non-professional setting? 5 for blue collar workers who were smokers before 2000? 6 A No, I don't have numbers of any of those 6 A I don't know. things that you're asking me. 7 Q Do you know approximately? 7 8 8 Q Well, I wasn't asking for a number, sir. I A No. 9 was asking whether you considered that. 9 Q You have no idea? A I don't remember whether we considered that 10 10 A No, I don't live in Libby to begin with, and, or not. I think we just talked about welding. 11 11 you know, I know some areas where there was blue Q Now, did you consider the effects of asbestos collar workers, but I don't know what the total is, 12 12 13 exposure as they're differentiated between men and 13 you know. It's a blue collar company town pretty 14 women? 14 15 A No, we have not yet. 15 Q Do you have -- do you have any sense of what the general population of blue collar workers in the 16 Q Did you ever breakdown --16 United States was that smoked before 2000? MR. LEWIS: We couldn't hear that 17 17 question. There was an interruption on the line or 18 18 something. I'm sorry, Counsel. 19 19 Q Do you know what it was in Washington state? 20 Q (By Mr. Svirsky) Did you -- for the 20 Α individuals whose histories you considered, 21 21 Q Did you consider how many of the individuals Dr. Whitehouse, did you ever break it down into 22 from Libby whose histories you considered have 22 alleged asbestos-related bodily injury claims against 23 permanent residents of Libby versus temporary 23 residents? 24 other defendants other than Grace? 24 25 A Yeah, that's all been broken down. 25 A No, I do not. I only actually know of one,

84 (Pages 330 to 333)

Page 334 Page 336 but there may be more. 1 opinion? 2 Q I'm sorry. You said you know of one? 2 A That's where it all came from. It came from A That's the only -- I only know of one. 3 3 the Libby -- or W.R. Grace's vermiculite mine. 4 Q How did you learn about that one? That's where all the asbestos in town came from. 4 5 A It was a patient of mine. 5 Q Other than the asbestos in the mine, did you Q So other than -- withdrawn. account for other ambient asbestos in Libby -- in the 6 6 7 So you just learned about it randomly from 7 area of Libby, Montana? speaking to your patient? A Not that we're aware of. I don't think there 8 8 9 A It was a patient I saw and he told me about 9 is any other. it a long time ago, probably close to ten years ago, 10 10 Q Did you conduct any tests to determine and I sent a bunch of stuff off to a lawyer whether there was any other asbestos or review any --11 11 somewhere, and I can't even remember where and that's 12 anybody else's tests in that regard? 12 13 the last I heard of it. 13 A No, not really. 14 Q So other than randomly finding out that 14 Q Are there activities that disturb asbestos information from one of your patients, you did not 15 15 that's naturally occurring to release it into the specifically look for that information to consider; 16 16 air? is that right? 17 17 A You mean in Libby? 18 A No, I think we did. I think we generally 18 Q Yes. 19 asked people about legal actions and things and there 19 MR. LEWIS: Object as to the form of aren't very many people out there that do except for 20 20 the question. 21 against Grace. 21 MR. SVIRSKY: I'll ask it again or Q I'm sorry. When you said legal actions, what 22 22 differently. were you referring to, sir? 23 23 Q (By Mr. Svirsky) Are there activities in 24 A I was referring to people at the CARD Clinic 24 general anywhere, Libby or elsewhere on the planet, who had legal actions against other -- other 25 that would disturb asbestos naturally occurring in Page 335 Page 337 companies other than W.R. Grace. the environment to release asbestos particles in the 1 1 2 2 Q And you factored that into your analysis, air? 3 sir? 3 A Sure, there are. There's lots of them. 4 4 Q What are some of those activities, A No. 5 5 Dr. Whitehouse? Q No. How did you quantify the impact of asbestos 6 A Oh, there's one around Sacramento, 6 from sources other than Grace on the population in 7 7 California. It's a district where they're building a Libby that you reviewed for your report? lot of buildings. There's apparently a bunch of 8 8 9 A In many respects, we actually haven't done so 9 homes in southern California that have it used as because it's not possible to do it. Most of the 10 fill in their homes, and there's other places, rock 10 exposure that people had, they weren't even very quarries in New Hampshire have asbestos. There's 11 11 familiar with how much exposure they had, and so the probably some asbestos in South Carolina in Grace's 12 12 best we can estimate is whether it was a big exposure 13 vermiculite mine. It's all over. 13 or a small exposure from what they tell us, and aside 14 Q And what activities disturb -- cause the 15 from that, it's not possible to factor it into 15 release of that asbestos to increase in the air? 16 anything. 16 A Well, the obvious is mining and digging it 17 up, but aside from that, I don't know. I'm not an Q Now, Dr. Whitehouse, you're aware that 17 18 asbestos is naturally present in soil and rock and 18 expert in that and I don't deal with that.

vermiculite and they hauled it down in their pickups and put it in their backyard and their attics and

Q So is it fair to say that you did not account

for any factors that might have released naturally

occurring asbestos in the area of Libby into the air

A Oh, no. People went up to the mine and got

other than through mining activities?

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A Yes.

A No doubt.

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elsewhere in the environment, are you not?

Q And it's a fact that asbestos is naturally

Q Did you account for that presence of natural

present in the area of Libby, Montana, is it not?

asbestos in Libby, Montana, in rendering your

85 (Pages 334 to 337)

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- their gardens and paved the school tracks, paved 1 2 roads. They did all kinds of things with it, and that was outside of the mining itself. 3
  - Q Did you consider the release of asbestos other than what you just described as asbestos that was mined and then brought to the town and used?
  - A Well, you know, we knew that the lumber mill had some chrysotile in pipe insulation. That's the only other source of asbestos that we know of.
  - Q Did you account for that asbestos in your analysis?
  - A We haven't done analyses that would -- I'm not sure what you're talking about. Account for it in an analyses, tell me what you mean.
  - Q How did you factor in the asbestos in the lumber mills in to rendering your report?
- A We don't. I haven't. 17
- 18 Q And how did you account for naturally 19 occurring asbestos elsewhere in the area of Libby,
- Montana, other than what was mined and otherwise used 20
- in the town in rendering your report in this case, 21
- Dr. Whitehouse? 22

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- 23 A We haven't. There isn't any.
- 24 Q I'm sorry. You said there isn't any. What
- do you mean there isn't any? 25

A Well, the EPA has done extensive tests, and

- if you need to look at that in detail, you can ask the EPA for the data which is public data.
- 4
  - Q Dr. Whitehouse, my question was whether you reviewed any materials that measured naturally occurring asbestos in the area of Libby, Montana.

Page 340

- A No, I have not.
- 8 Q Now, who determined what documents or other 9 materials you reviewed to prepare your expert report 10 in this case?
- 11 A Oh, this is a compilation of articles and 12 research and medical stuff that goes back ten years.
- 13 Large amounts of stuff that I've collected,
- 14 literature, particularly large volumes of literature. 15
  - Q My question was: Dr. Whitehouse, who determined what you reviewed?
- A I determine what I review. 17
- 18 Q So that was solely in your own discretion; is 19 that right?
  - A Well, I get things through the clinic sometimes. You know, a fellow that I work with in the clinic gets articles occasionally, and he has
- 23 PubMed, and occasionally we look up things there, so
- 24 there's just a variety, but that's where it comes
- from. 25

Page 339

- A I don't think there's any other naturally occurring asbestos around except what's associated with the mine.
- Q Well, perhaps I didn't hear you correctly over the phone. I thought you said you never conducted any tests to determine how much naturally occurring asbestos there was in Libby, Montana, other than in the mine.
- A I don't -- I don't know that you understand. I'm a practicing chest physician, not an analytic chemist or anything like that. I don't do that kind of testing.
- Q Well, that's fine, sir. I just want to -- I just want to have a record of what you did and didn't do.

And just so we have it clear, you did not conduct any test to determine what naturally occurring asbestos there was in Libby, Montana, other than what was in the mine, right?

- A That's correct.
- Q And you didn't review any materials that anybody else had prepared to determine how much naturally occurring asbestos there was in the area of Libby, Montana, other than what was the mine,
- 25 correct?

Page 341 1 Q Did the attorneys who retained you to render 2 a report here direct you to any materials to review in connection with your report?

- A Yeah, they've given me materials also.
  - Q What materials did they give you?
- A Mostly it's published articles that they run across for some reason or another.
  - Q Anything else?
- A Not really. The stuff that they have used an 10 accountant to put together is all stuff that I 11 developed.
- Q Now, did you turn over in this case all the 12 13 documents that you reviewed or relied upon in 14 rendering your report by March 16, 2009?
  - A I believe I did. The lawyers were responsible for some of those reports getting sent too, so I turned over everything I was supposed to.
    - Q To whom did you turn everything over to?
- A Well, John Heberling who's the attorney at 19
- 20 Kalispell that is doing a lot of this work is -- he's
- the one that has the various documents and that gets 21
- 22 turned over, things that I've developed and things
- that -- I've written also about things in the 23
- 24 literature that I've had. It's just -- all of it
- 25 goes through him to be delivered to W.R. Grace.

86 (Pages 338 to 341)

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1 Q So just to be clear, by March 16 of 2009, 2 it's your testimony that you have produced to Mr. Heberling or his associates or partners 3 4 everything that you reviewed or relied upon in rendering your report in this case; is that right? 5

A Yes, and I have produced everything that anybody has asked me to produce.

- Q But you don't know whether Mr. Heberling produced by that date to all the parties to this litigation; is that right?
  - A I have no idea.
- 12 Q Now, in paragraph two of your expert report, 13 you mention 1,800 active cases. I assume you have a 14 copy of your report somewhere?
- 15 A I do.

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- Q Do you see that reference to 1,800 active 16 cases? 17
- 18 A Yes.
  - Q Have you turned over all the medical records in connection with those 1,800 cases?
  - A I haven't personally and I have no idea whether they've been turned over at this point or not. I don't think all 1,800 have.
    - Q How many have been turned over?
    - A Well, I know all the claimants' records have

Page 342 Page 344

> 1 MR. LEWIS: That's Exhibit-3 to this deposition for the record.

- Q (By Mr. Svirsky) Now, in addition to Exhibit-3 to this deposition, have you produced any documents after May 27, 2009, for production in this litigation?
- A I don't believe so. I'm not sure. I don't think so.
- Q Okay. Now, other than the -- some of the files in connection with the 1,800 active cases in paragraph two of your report, are there any other documents that you reviewed or relied upon in rendering your opinions that have not been produced in this litigation?
- A Well, I have a bibliography of about 1,000 literature articles that I've read, multiple textbooks.
- 18 Q Leaving aside the list of materials in your 19 bibliography, are there any other materials or documents that you relied upon in rendering your 20 21 opinions?
  - A I don't think so. I think it's all been produced.
    - Q Other than what you described about the 1,800 active cases in paragraph two, right?

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- been turned over and a significant number of my records that are not claimants, but I don't know how many actually totally have been turned over.
- Q But not all of the 1,800 have been turned over in production; is that right, sir?
- A I don't really know for sure. I understand there may not be, but that's not my responsibility.
- Q I'm not blaming or accusing you, Dr. Whitehouse. I just want to get the record on this.
- A Well, that's the best answer I can give you. I'm sorry.
- Q Since May 27, 2009, have you produced to Mr. Heberling or any of the lawyers he works with any additional medical records or documents for production in this case?
- A Well, we brought here what's called a final key which is the names of all the Libby claimants with a number that corresponds, I think, to a numbering of charts that they already have, and also in there indicates just their birth date and there's initials for people that do not have attorneys or are not claimants in this case, and those records have been redacted and sent over, I would think too, and there's a total of 1,030 in this list.

A Yeah, and I don't know what the status of all that is.

Q Now, in connection with the so-called 550 database, was any of the data that was lost there kept in any other source?

A No, the data actually is all -- the feds have all the data. They were given it, the Department of Justice for the criminal trial. Unfortunately, the names were all redacted and so there's -- there's not really any clear way to identify it except by date of birth and it can probably be identified that way.

- Those are mostly non-claimants, and so there were a 12 13 lot of charts that were given to the government or
- given to Grace a long time ago, four, five years ago
- 14 15 that were all redacted except that I understand for
- the date of birth, and so it's all retrievable 16
- 17 because I have a list of the names of the people now,
- but I don't have any charts that go with them, so it's possible to recreate that, although it'd take 19
- 20 some work to do it.
- 21 Q I'm sorry. You said it is possible to 22 recreate that -- that data? 23
- A Well, possibly except that unfortunately, 24 you're not going to get the names because of HIPAA
- 25 laws. These were mostly my patients and not CARD

87 (Pages 342 to 345)

Page 345

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Page 346

patients. I mean, some of them. Some of them
certainly are CARD patients, and I don't know what
the breakdown is.

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- Q And what would you look to to recreate that data? What information would you look to?
- A You'd have to have all the charts there with all the date of births, if they're still intact on the charts, and then I'd have to review them, and I guess we can tell you which ones have lawsuits and which ones don't.

You wouldn't be able to get any further information in the ones that don't have lawsuits. The data on -- you know, the data is basically junk because I stopped keeping it. It was kept sort of erratically after I closed my practice, and so it's not very accurate.

Everybody's interested in that. I'm not sure why.

- Q Do you still have the charts and the background data that you described from which you could recreate the 550 database?
- A I do not. I was provided with a chart of the names which came from the CARD Clinic because they kept a list of who they sent to Grace in 2005 or so, and I don't have -- I have nothing left on my

1 it hourly or piecemeal or another way?

- A Hourly.
- Q And how many hours -- what was your hourly compensation rate?

Page 348

Page 349

- A Right now it's 350 for depositions and 300 for reviewing records, but probably at the beginning of this was like -- you know, this all began about twelve or fourteen years ago, so it was probably considerably less then.
- 10 Q So how many hours would you say you've spent 11 on this case?
- 12 A On this case or the bankruptcy or everything 13 else?
- 14 Q Yeah, the bankruptcy now. Let me rephrase 15 that.

How many hours did you spend to prepare the report that was submitted in this case?

A You know, really, I don't know because the report has been done piecemeal. It keeps getting changed periodically when new data becomes available, and then parts of the old -- some of the parts of this report go back probably four or five years and other parts are new.

MR. LEWIS: Counsel, we've been going for over seven hours and I think that's the cutoff

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computer with that. I had a computer crash and lost it, and I didn't -- unfortunately, I did not have it backed up.

I suspect I didn't back it up because I knew that the CARD had it and that the Department of Justice had it and I didn't worry about it because I wasn't using it, so I didn't -- we didn't track it down at that time. It wasn't worth doing.

- Q So the CARD Clinic has the background information that one would need to recreate the 550 database?
- A They might be able to. They can't do it without me.
- 14 Q Have you tried to recreate the 550 database 15 by looking at the CARD Clinic information?
  - A No
  - Q Now, Dr. Whitehouse, how much have you been paid in connection with your expert opinion and testimony in this matter?
  - A What, today or when?
- 21 Q In total.
- 22 A I already told Mr. Bernick -- or was it
- 23 Mr. Finch, I guess -- that probably over a long period of time, over \$100,000.
  - Q And on what basis were you compensated? Was

point. How much more do you have?

MR. SVIRSKY: I'm just about done here.

MR. LEWIS: Okay. Let's speed it up then, please.

Q (By Mr. Svirsky) All right. Did you submit billing statements for your work here to get compensated?

MR. LEWIS: Objection. Counsel, you're talking about here. This doctor has testified at a federal criminal trial. He's participated in the workup on that.

 $\ensuremath{\mathsf{MR}}.$  SVIRSKY: Well, let me just correct that, so it's clear.

MR. LEWIS: Yeah.

- Q (By Mr. Svirsky) Did you submit billing statements in general for any work you did in connection with Libby claimants and bankruptcy or the criminal trial or elsewhere so that you could get paid for your services?
- 20 A Yeah, I have. Every month, I keep it up to 21 date.
- Q Have those billing statements been produced in discovery in this case?
- 24 A No.
- 25 Q Have you received any compensation from any

88 (Pages 346 to 349)

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In re: W.R. Grace & Co., Debtor

Alan C. Whitehouse, M.D.

	Page 350		Page 352
1	individual claimant?	1	been a lot since 2001. It's about four occupational
2	A No.	2	medicine cases and no trials and then the criminal
3	Q Who pays you?	3	trial.
4	A Attorneys.	4	Q Have you prepared any report with respect to
5	Q Mr. Heberling?	5	any of the Libby claimants since 2001?
6	A Mr. Heberling, the Department of Justice.	6	A Oh, yeah, it's a huge report.
7	There will be a bill that goes to the Grace attorneys	7	Q Okay. Let me clarify. I mean on behalf of
8	for today.	8	an individual claimant
9	Q Are you still are you treating any of the	9	A No.
10	Libby claimants now?	10	Q for a specific claim.
11	A Yeah, I still go up there once a month.	11	A No.
12	Q How many Libby claimants are your patients	12	MS. DeCRISTOFARO: Those are my only
13	now?	13	questions. Thank you very much.
14	A Well, I really don't know because we're	14	THE WITNESS: Okay.
15	we're you know, I see a lot of them once a year,	15	MR. LEWIS: Anyone else?
16	and I probably see ten to fifteen once a month when	16	THE VIDEOGRAPHER: We are going off the
17	I'm up there, so I probably see 150, 200 a year. I	17	record. The time is now 5:01 p.m. This is the end
18	don't know the exact number though.	18	of disk number four and, herein, ends the deposition
19	MR. SVIRSKY: Thank you for your for	19	for today.
20	staying behind to answer my questions,	20	(Signature reserved.)
21	Dr. Whitehouse. I don't have anything else.	21	(Deposition concluded
22	THE WITNESS: Okay.	22	at 5:01 p.m.)
23	MS. DeCRISTOFARO: Mr. Lewis, this is	23	at 3.01 p.m.)
24	Elizabeth DeCristofaro. I have just two questions	24	
25	quickly.	25	
25	quickly.	23	
	Page 351		Page 353
1	=		rage 333
	MR LEWIN: There's no broblem with	1	
	MR. LEWIS: There's no problem with	1	
2	that, ma'am.	2	S-I-G-N-A-T-II-R-F
2 3	that, ma'am.  EXAMINATION	2	S-I-G-N-A-T-U-R-E
2 3 4	that, ma'am.  EXAMINATION BY MS. DeCRISTOFARO:	2 3 4	S-I-G-N-A-T-U-R-E
2 3 4 5	that, ma'am.  EXAMINATION  BY MS. DeCRISTOFARO:  Q Okay. Dr. Whitehouse, my name is Elizabeth	2 3 4 5	S-I-G-N-A-T-U-R-E
2 3 4 5 6	that, ma'am.  EXAMINATION  BY MS. DeCRISTOFARO:  Q Okay. Dr. Whitehouse, my name is Elizabeth  DeCristofaro. I just wanted to know following up	2 3 4 5 6	S-I-G-N-A-T-U-R-E
2 3 4 5 6 7	that, ma'am.  EXAMINATION  BY MS. DeCRISTOFARO:  Q Okay. Dr. Whitehouse, my name is Elizabeth  DeCristofaro. I just wanted to know following up on the questions you were just asked have you	2 3 4 5 6 7	
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In re: W.R. Grace & Co., Debtor

Alan C. Whitehouse, M.D.

	T	
	Page 354	
1	STATE OF WASHINGTON ) I, CATHY M. ZAK, ) ss CCR# 1922 a duly	
2	County of King ) authorized Notary	
3	Public in and for the State of Washington	
ľ	residing at Bellevue,	
4 5	do hereby certify:	
6		
7	That the foregoing deposition of ALAN C, WHITEHOUSE, M.D., was taken before me and	
'	completed on June 16, 2009, and thereafter was	
8	transcribed under my direction; that the deposition is a full, true and complete transcript of the	
9	testimony of said witness, including all questions,	
10	answers, objections, motions and exceptions;	
	That the witness, before examination,	
11	was by me duly sworn to testify the truth, the whole truth, and nothing but the truth, and that the	
12	witness reserved the right of signature;	
13	That I am not a relative, employee attorney or counsel of any party to this action of	
14	relative or employee of any such attorney or counsel	
	and that I am not financially interested in the said action or the outcome thereof.	
15 16	IN WITNESS WHEREOF, I have hereunto	
17	set my hand and affixed my official seal on June 22, 2009.	
17 18	2007.	
19 20		
21		
22	Cathy M. Zak, CCR	
23	Notary Public in and for the State	
24	of Washington, residing at Bellevue.	
25		

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